Borough of Harrogate.

REPORT

ON THE

Health and Sanitary Condition

OF THE

BOROUGH OF HARROGATE

FOR

1913.

BY

JAMES MAIR,
Medical Officer of Health.

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To the Mayor, Aldermen, and Councillors of the
Borough of Harrogate.

GENTLEMEN,

I have the honour to submit to you for your information and consideration this, my fourth, ANNUAL REPORT upon the Health and Sanitary Circumstances of the Borough of Harrogate.

I have again to thank my colleagues for the assistance they have always given me, and the members of my own staff for their help in carrying out the work of the department.

I have to acknowledge also the courtesy which the Chairman and members of the Health Committee have always extended to me.

I am, Gentlemen,
Your obedient Servant,
JAMES MAIR.

Public Health Office,
Harrogate,
May, 1914.

Principal Figures, 1913.

Population estimated at middle of 1913		34,960
Area in acres		3,276
Census, 1911	Population	33,706
	Density of Population (persons per acre)	10·3
	Number of Inhabited Houses	7,409
	Average number of persons per house	4·6
Rateable Value		£270,293
Penny Rate produces		£1,000
Number of Births	Male 295 Female 287	582
Birth Rate		16·3
Number of Deaths	Male 216 Female 207	423
Death Rate		11·9
Infant Mortality		77·3
Zymotic Death Rate		0·34
Death Rate from Phthisis		0·54
Death Rate from other Tuberculous Diseases		0·11
Mean Annual Temperature		47·2° F.
Total Rainfall		26·63 ins.
Hours of Bright Sunshine		1428·3 hrs.

Physical Features.

Harrogate is a Municipal Borough in the West Riding of Yorkshire, about 18 miles to the north of Leeds.

It lies on the edge of the Yorkshire Moors, on a tableland which forms the western boundary of the Plain of York, and is situated almost midway between the Irish Sea and the German Ocean. Its mean altitude is about 400ft., the highest point being Harlow Hill some 600ft. above sea level.

Councillor J. H. Lofthouse, who has made a special study of the Geology of Harrogate, has been kind enough to write the following interesting account, for which I am much indebted to him.

"The rocks which occur in the immediate vicinity of Harrogate belong to the Carboniferous formation, and comprise the Harrogate Roadstone series, and the lower beds of the millstone grit.

"The millstone grit is, for the most part, a series of several beds of coarse massive grits, separated from each other by thick beds of shale.

"The Harrogate Roadstone series consist of shales, with a few bands of cherty limestone, and a fairly massive bed of sandstone near the base.

"Stretching from Harrogate in a south-westerly direction, an anticlinal throws up the roadstone strata, and dipping from it the millstone grit crops out on all sides. This is clearly seen at Pannal and Birk Crag, where the same bed of grit forms, as it were, walls on either side of the anticline. These rocks dip at Birk Crag about 43 degrees N.W., but on the south side they dip to the Crimple Valley, that is, in an opposite direction, or S.E., from 20 to 40 degrees. They bend round to the fault, and at Starbeck dip to the east only about 4 degrees. From this it appears that the anticlinal of Harrogate dies out to the east.

"The axis of this disturbance is well seen in Low Harrogate, where the roadstone dips respectively N.W. and S.E. at high angles, and the same thing occurs near Beckwithshaw to the S.W. of Harrogate. From these two positions the general run of the axis of disturbance may be easily gathered. The highest point in this area is Harlow Hill, 600ft. above sea level. The sandstone which caps this hill is one of the lowest beds of the district. About half-a-mile on either side of this hill occur some of the principal sulphur springs. The northern boundary of the roadstone measures is formed by a fault which runs from Shaw Green, through Harrogate, to Bilton, and throws the roadstone against the millstone grit."

For municipal purposes the Borough is divided into five wards. The census population of these wards is given in the next table.

Name	Population		Increase or Decrease
	1901	1911	
Central	5.744	5,562	— 182
East	8,678	9,524	+ 846
West	7,835	8,836	+ 1,001
Bilton	2,850	5,805	+ 2,955
Starbeck	3,316	3,979	+ 663
Whole Borough ...	28,423	33,706	+ 5,283

Harrogate is almost wholly a residential town. It is a well-known health resort, famous for the number and variety of its mineral waters, and the number of invalids who resort to it in search of health is yearly increasing.

There are no manufactories in the town, and practically the only industries are those incidental to a health resort.

The rateable value of the Borough is £270,293, and a penny rate produces £1,000.

Population.

The population of Harrogate at the middle of 1913 is estimated by the Registrar-General at 34,968, an increase of 566 over the estimated population at the middle of 1912. This estimate is based on the assumption that the population has increased since the census of 1911 at the same rate as it did during the previous intercensal period.

As the Registrar-General's estimate is probably fairly accurate I have adopted it, and from it are calculated the various rates in this Report.

The following table gives the estimated population of each of the Municipal Wards at the middle of 1913. As any error in estimating the population of the whole borough is greatly magnified in estimating the Ward populations, these estimates can only be approximately correct and the rates based upon them must be looked upon with some reserve.

Ward	Estimated Population
Central	5,530
East	9,725
West	9,076
Bilton	6,486
Starbeck	4,143
Whole Borough ...	34,960

Density of Population.

The area of the Borough is 3,276 acres, and at the census of 1911 the number of persons per acre was 10·3. Estimating the population for 1913 at 34,960 the number of persons per acre is 10·7. The average number of persons per house at the census was 4·6.

Natural Increase of Population.

The following table shows the "natural increase" of the population during the year; that is the excess of births over deaths registered during that period.

Year	Births	Deaths	Natural Increase of Population	Natural Increase per 1,000
1904	734	384	350	11·5
1905	700	378	322	10·4
1906	659	381	278	8·8
1907	631	370	261	8·2
1908	555	358	197	6·2
1909	640	358	282	8 6
1910	629	348	281	8·4
1911	606	397	209	6·2
1912	500	320	180	5·2
1913	582	423	159	4·5

This table shows that the rate is still steadily falling; and it also shows that the increase in the population of the town is due not so much to the natural increase as to immigration.

Births and Birth Rate.

During 1913* (53 weeks) there were 575 births registered as having occurred within the Borough. Of these 291 were males and 284 were females. The births of 7 children—4 males and 3 females—whose parents though ordinarily resident in Harrogate were at the time of the birth residing elsewhere have to be added, making the total number of births 582.

The birth rate for the year is therefore 16·3 per 1,000 of the estimated population. This is a slight improvement on the rate for 1912 which was the lowest on record, but it is 3·6 per 1,000 below the average rate for the ten years 1903 to 1912, and 7·6 per 1,000 below the rate for England and Wales.

* Note—The births and deaths are those registered during the 53 weeks ended January 3rd, 1914, and the *numbers* are therefore not comparable with those of previous years which contained 52 weeks. The *rates*, however, are comparable, as in calculating them the requisite correction has been made.

The birth rate for England and Wales during 1913 was as follows :—

England and Wales	23·9
96 Great Towns	25·1
145 Smaller Towns	23·9
England and Wales less the 241 towns ...	22·3
Harrogate	16·3

The next table shows the birth rate for Harrogate compared with that of England and Wales.

Year	Harrogate		England and Wales Rate per 1,000
	Number of Births	Rate per 1,000	
1903	712	23·7	28·4
1904	734	24·0	27·9
1905	700	22·6	27·2
1906	659	20·9	27·0
1907	631	19·7	26·3
1908	555	17·3	26·5
1909	640	19·4	25·6
1910	629	18·8	24·8
1911	606	17·9	24·4
1912	500	14·5	23·8
1913	582	16·3	23·9

Table showing the number of births and birth rates in the different Wards during 1913.

Ward	Total Number of Births	Illegitimate Births	Percentage of Illegitimate Births	Birth Rate per 1000
Central... ...	72	9	12·5	12·8
East	163	11	6·7	16·4
West	83	7	8·4	9·0
Bilton ...	155	13	8·4	23·4
Starbeck ...	102	2	2·0	24·2
Transferred ...	7	5	—	—
Whole Borough	582	47	8·1	16·3

The birth rates of the different Wards show considerable variation. Starbeck (24·2) stands highest and Bilton (23·4) very slightly lower. The West Ward (9·0) is lowest.

Illegitimate Births.

I have again to record an increase in the proportion of illegitimate births. The number of illegitimate children born during 1913 was 47, as compared with 33 in 1912. This represents 8·1 per cent. of the total births and gives an illegitimate birth rate of 1·3 per 1000 of the estimated population, and is the highest percentage in recent years. The highest percentage occurred in the Central Ward (12·5), and the lowest in Starbeck Ward where it only amounted to 2 per cent.

1913 .. 8·1 per cent. of the births were illegitimate
1912 ... 6·6 ,, ,, ,,
1911 ... 6·8 ,, ,, ,,
1910 ... 4·3 ,, ,, ,,
1909 ... 5·9 ,, ,, ,,
1908 ... 5·2 ,, ,, ,,

Notification of Births.

The Notification of Births Act (1907) was adopted by the Harrogate Borough Council, and came into operation on the 11th March, 1912.

The Act requires all births to be notified to the Medical Officer of Health within 36 hours of their occurrence. The object of the Act is to give the Sanitary Authority early information of the occurrence of births so that visits may be made by Health Visitors to those homes where advice on the rearing of infants is most likely to be needed. It also enables us to assist the County Authorities in supervising midwives. The medical men and midwives practising within the Borough are kept supplied with stamped letter-cards upon which to notify the births.

Table showing the number of births which actually occurred during 1913, the number registered, and the number notified during the same period.

Number of births which actually occurred in 1913	558
Number of births registered in 1913	575
Number of births notified in 1913	521
Number of live births notified in 1913 ...	510

There were 575 births registered during the year, and 521 births (90·6 per cent.) were notified during the same period.

The number of births which actually took place during the year however, was 558, and the number of live births notified was 510, so that 91·4 per cent. of all births which occurred in 1913 were notified. This cannot be regarded as other than a satisfactory result for the first complete year during which the Act has been in force.

Enquiry was made into those births which were not notified, and in no case was it found that there was any wilful neglect to comply with the Act.

The next table shows the sources from which the notifications were received and the number derived from each source.

Source of Notification	Number	Proportion per cent.
Medical men	219	42·9
Midwives	227	44·5
Parents or other persons	64	12·6
All sources	510	100·0

Still-Births.

The Notification of Births Act requires the notification of still as well as live births, provided the child has reached the twenty-eighth week of pregnancy.

During 1913, 11 still-births were notified; 6 by medical men, 3 by midwives, and 2 by parents.

Still-births are not required to be registered, but I am informed by the Superintendents of the Cemeteries that there were 24 still-born children interred during 1913. In 20 of these the certificate was given by a medical man, and in 4 by a midwife. As only 11 still-births were notified it is evident that all still-births are not notified. It may be that in those cases which were not notified the child was not considered to have reached a viable age.

In 1912 there were 28 burials of still-born children in Harrogate.

Deaths.

452 deaths were registered in Harrogate during the year* (53 weeks). Included in this number are the deaths of 387 persons belonging to the Borough (residents) and of 65 persons not belonging to Harrogate but dying in the Borough (non-residents). 36 Harrogate residents died in other places, and these have to be added to the 387 resident deaths, making a total number of 423 resident deaths. Of the 423 resident deaths 216 were males and 207 were females.

The death rate is 11·9 per 1000 of the population, and is the highest rate recorded since 1906 (12·1). It is 2·6 per 1000 above the rate for 1912, which was the lowest on record, and 0·5 per 1000 above the average rate for the ten years 1903-12.

* See Note Page 8.

Death rate for Harrogate compared with England and Wales.

Year	Harrogate	England and Wales
1900	15·6	18·2
1901	13·2	16·9
1902	11·8	16·2
1903	12·6	15·4
1904	12·5	16·2
1905	12·2	15·2
1906	12·1	15·4
1907	11·5	15·0
1908	11·2	14·7
1909	10·8	14·5
1910	10·3	13·4
1911	11·7	14·6
1912	9·3	13·3
Average for ten years, 1903-1912	11·4	14·8
1913	11·9	13·7

In comparing the rates in this table it should be noted that owing to the different method of dealing with "transferable deaths" which came into operation in 1911 the rates for the years previous to 1911 are understated as compared with those for the years since that date.

Table showing number of deaths at various age periods during 1913 and 1912.

Age	1913	1912
Under 1 year	45 (+13)	32
1-2 years...	5 (−4)	9
2-5 years...	7 (−2)	9
5-15 years	11 (+5)	6
15-25 years	11 (−2)	13
25-45 years	56 (+26)	30
45-65 years	104 (+29)	75
65 years and upwards ...	184 (+38)	146
All Ages	423 (+103)	320

This table shows that there was an increase in the number of deaths at nearly every age period, and that the largest proportional increase was among persons aged from 25 to 45 years, of whom nearly twice as many died as in 1912.

There was a slight decrease as compared with last year in the number of deaths from Whooping Cough, Other Tuberculous Diseases, Meningitis, and Suicide, but in nearly every other disease which figures as a cause of death in the Local Government Board Table III., there was an increase. The diseases which show the greatest increase are:—Diseases of Respiratory System (21), Heart Diseases (12), Cancer (11), Influenza (7) Congenital Debility (9), and the group of diseases comprised under the heading "Other Defined Diseases" (31).

Of the total number of deaths registered 58 occurred in a public institution in the Borough; 41 occurred in the Harrogate Infirmary; 14 in the Home for Incurables; 2 in Dr. Barnardo's Home; and 1 in the Heatherdene Convalescent Home.

Every death was certified by a medical man or by the Coroner.

DEATH RATES IN WARDS.

The next table shows the number of deaths and the death rates in each Ward during 1913.

Ward	1913		1912	
	Number of Deaths	Rate per 1,000	Number of Deaths	Rate per 1,000
Central	75	13·3	64	11·6
East	101	10·2	84	8·7
West	123	13·3	87	9·7
Bilton	68	10·3	87	7·6
Starbeck ...	56	13·3	38	9·4
Whole Borough	423	11·9	320	9·3

Inquests.

During the year 25 inquests were held in Harrogate; 22 related to residents and 3 to non-residents. The causes of death as certified by the Coroner were :—

RESIDENTS.	
Natural Causes (Disease)	12
Accidental Burns	1
Exposure to Cold	1
Injuries (Accidental)	1
Poisoning by Misadventure	1
Poisoning	1
Manslaughter by Shooting	1
Suicide by Shooting	1
,, Drowning	1
,, Hanging	1
,, Coal-gas Poisoning	1
NON-RESIDENTS.	
Natural Causes (Disease)	1
Suicide by Wounding	2

Four inquests were held upon children under 1 year of age, and in each instance the cause of death was certified by the Coroner as convulsions.

Corrected Death Rate.

As has been explained in previous reports, in order to make the Harrogate death rate more truly comparable with that of other districts it is necessary to correct it for the age and sex distribution of the population. The Registrar-General states that to make this correction the death rate has to be multiplied by 1·0029. This factor, however, is so small that it has no appreciable effect upon the death rate.

The corrected rates are given here.

	Crude	Corrected
England and Wales	13·7	13·4
96 Great Towns	14·3	14·7
145 Smaller Towns	12·8	13·0
England and Wales, less the 241 Towns	13·1	12·1
HARROGATE	11·9	11·9

Infant Mortality.

During the year there were 582 births, and 45 children under one year of age died during the same period. The infant mortality is therefore 77·3 per 1,000 births.

Of the 45 infants who died 30 were males and 15 were females.

There were 36 deaths of legitimate and 9 deaths of illegitimate infants. The mortality among legitimate infants was therefore 67·3 per 1,000, and among illegitimate infants it was 191·5 per 1,000.

The following table shows the infant mortality in Harrogate and in England and Wales for each year from 1900.

Year	Harrogate		England and Wales
	Number of Deaths	Rate per 1,000 Births	Rate per 1,000 Births
1900	61	144·9	154
1901	110	144·7	151
1902	79	113·7	133
1903	83	116·6	132
1904	85	115·8	146
1905	92	131·4	128
1906	86	130·5	133
1907	44	69·7	118
1908	63	113·5	121
1909	55	85·9	109
1910	57	90·6	106
1911	61	100·7	130
1912	32	64·0	95
Average for ten years 1903-1912	66	101·9	122
1913	45	77·3	109

Table showing the mortality in the different districts of England and Wales compared with Harrogate.

England and Wales	109
96 Great Towns	117
145 Smaller Towns	112
England and Wales less the 241 towns	96
Harrogate	77·3

The next table gives the infant mortality in each of the Municipal Wards during the years 1910 to 1913.

Ward	1910	1911	1912	1913
Central	82·4	115·9	127·0	41·7
East	59·1	121·2	39·0	104·3
West	107·8	40·4	95·2	72·3
Bilton	136·4	96·4	61·6	58·1
Starbeck	84·1	125·0	44·4	98·0
Whole Borough	90·6	100·7	64·0	77·3

Table showing the infant mortality in each of the four quarters for each year from 1910 to 1913.

	1910	1911	1912	1913
First Quarter	89·7	66·2	111·9	84·4
Second ,,	62·9	55·6	55·6	87·8
Third ,,	90·9	173·0	26·1	68·9
Fourth ,,	116·9	120·8	61·9	70·9

NOTE.—In preparing these two preceding tables, only those births which took place in the Borough have been used. No correction has been made for transferable births.

Table showing the number of children dying in each of the first twelve months of life.

	Number of Deaths.
1st month	20
2nd ,, ...	5
3rd ,, ...	3
4th ,, ...	4
5th ,, ...	3
6th ,, ...	—
7th ,, ...	1
8th ,, ...	1
9th ,, ...	1
10th ,, ...	6
11th ,, ...	1
12th ,, ...	—

Table showing number of infants dying in each of the first four weeks of life.

	Number of Deaths
1st week ...	14
2nd ,, ...	1
3rd ,,	2
4th ,, ...	3

PRINCIPAL CAUSES OF INFANT DEATHS, 1901 TO 1913.

	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913
Marasmus, Debility and Atrophy	27	?	?	?	10	8	7	5	5	6	9	2	4
Convulsions	?	21	14	8	16	9	9	10	10	4	4	5	9
Bronchitis and Pneumonia ..	12	11	13	15	12	11	7	11	9	7	9	6	5
Whooping Cough	5	7	3	4	7	—	—	2	2	2	4	1	—
Measles	—	—	1	1	—	2	—	—	3	1	—	1	—
Premature Birth	16	?	11	14	18	14	5	8	10	16	12	5	10
Congenital Defects	?	?	?	?	5	4	4	5	9	7	4	4	5
Diarrhœa, Enteritis, & Gastritis	14	7	9	12	11	22	3	8	3	9	14	3	6
All other Causes...	32	31	38	31	13	16	9	14	4	5	5	5	6
Total Deaths	*106	*77	*89	85	92	86	44	63	55	57	61	32	45
Total Births	760	695	712	734	700	659	631	555	640	629	606	500	582
Infant Mortality...	144·7	113·7	116·6	115·8	131·4	130·5	69·7	113·5	85·9	90·6	100·7	64	77·3

* 110 Deaths appeared to have been registered in 1901, 79 in 1902, and 83 in 1903—vide preceding table.

The infant mortality for 1913 is somewhat greater than in the previous year which was the lowest recorded, but it is considerably less than the average rate for the preceding ten years; it has indeed been lower on only two occasions, and in both these years (1907 and 1912) the climatic conditions were more favourable to a low mortality than in 1913.

As is usually the case the mortality among illegitimate infants (191·5) was much higher than among legitimate (67·3).

The mortality was lowest in the third and fourth quarters of the year, in which quarters it is as a rule highest.

As in former years, I have prepared a table showing the mortality in the different Wards, from which it will be observed that the Central Ward which last year was at the top of the list is this year lowest with a rate of 41·7. Of course the figures from which these rates are calculated are small, and too much reliance must not be placed upon them.

Of the 45 children who died during the year 20 or 44 per cent. were less than one month old; 14 or 31 per cent. had lived for less than one week; and 8 or 17 per cent. survived their birth for less than 24 hours.

From the table showing the principal causes of infant deaths it will be seen that the increase was principally in the deaths from convulsions, and from premature births, and congenital defects.

Health Visiting.

The Health Visitor, Miss A. Wardle, has carried on her good work during the year on the same lines as were detailed in last year's report.

Visits were paid to 376 births, and it is satisfactory that the Health Visitor is able to report that she does not remember a single instance of any objection being made to her visit; on the contrary she is always welcomed, and in nearly every instance is asked to visit again. As, however, the Health Visitor is also School Nurse and visits cases of tuberculosis it is impossible to visit every baby as often as could be wished, and attention is therefore concentrated upon those homes where visits seem to be most needed. In 58 cases the home conditions were so satisfactory that it was not thought necessary to pay more than one visit ; in the remaining cases subsequent visits were made as often as seemed desirable or possible.

Of the 376 births visited 196 had been attended by medical practitioners ; 179 by midwives ; and in one case there had been no qualified person in attendance.

The following information was obtained as to the method of feeding in 358 cases ; in 18 instances no information was available either on account of the early death of the child or because the family had left the town before the visit :—At the time of the first visit, which is made as a rule within a fortnight of the birth, 290 babies or 81 per cent. were wholly breast-fed ; 59 were entirely hand-fed ; and 9 were fed by both hand and breast. The reasons given for resorting to hand feeding in these 59 cases were :—medical advice, 9 ; mother unable to nurse, 6 ; child unable to suck, 2 ; mother working, 22 ; indifference, 20.

In 50 cases cow's milk diluted with water or barley water was given ; in 9 some variety of patent food was used.

Of 255 babies who were wholly breast-fed at the first visit and who were visited at intervals for a period of at least four months, it was found at the end of that time that 221 or 86 per cent. were still wholly breast-fed, 26 were entirely hand-fed, and 8 were both breast and hand-fed.

The proportion of mothers who having begun to nurse their children continue to do so for at least four months is considerably higher than in 1912—86 per cent. as compared with 76 per cent.—and this would seem to show that the advice given is not wholly without effect.

It is satisfactory also to note that the long tube bottle seems to be gradually disappearing. The Health Visitor states that in the majority of cases the boat-shaped bottle is in use.

Ophthalmia Neonatorum.

Ophthalmia Neonatorum was not notifiable in Harrogate during 1913, but six cases came to the notice of the Health Visitor. In one case the mother had been attended by a doctor, in five cases a midwife had been in attendance. Four cases received treatment at the Hospital, one was removed to the Workhouse Infirmary, and one child was treated at home.

In four instances the child made a complete recovery with apparently unimpaired eyesight; one child lost one eye and the sight of the other is impaired, and in the remaining case some impairment of eyesight remains.

Zymotic Mortality.

By Zymotic Mortality is meant the number of deaths from the seven principal zymotic diseases which are set out below.

In 1913 there were 12 deaths from these diseases as against 9 in 1912. The zymotic death rate is, therefore, 0·34 per 1,000, and with the exception of the rate for 1912 it is the lowest of which I have any record.

Zymotic Disease	1912		1913	
	Number	Rate	Number	Rate
Smallpox	0	0·00	0	0·00
Scarlet Fever ..	0	0·00	0	0·00
Diphtheria ...	1	0·03	2	0·06
Enteric Fever ..	0	0·00	1	0·03
Measles	1	0·03	0	0·00
Whooping Cough	4	0·12	0	0·00
Diarrhœa	3	0·09	9	0·25
Total	9	0·26	12	0·34

The zymotic rate for England and Wales was 1·20, and for the 145 small towns it was 0·8 per 1,000.

The next table gives the zymotic death rate for each year since 1901.

1901	1·59	1907	0·47
1902	0·53	1908	0·63
1903	0·63	1909	0·42
1904	0·82	1910	0·42
1905	0·93	1911	0·77
1906	1·21	1912	0·26
1913 ... 0·34			

Notification of Infectious Diseases.

During the year 127 cases of infectious disease were notified, comprising 58 cases of scarlet fever, 55 of diphtheria, 5 of enteric fever, and 9 of erysipelas. In 1912 only 62 cases were notified, the increase in 1913 being mainly due to the larger number of cases of diphtheria, of which there were more than four times as many as in 1912.

The ages of the patients and the numbers occurring in each Ward are given in the Local Government Board Table at the end of the report.

WEEKLY NOTIFICATION OF INFECTIOUS DISEASE.

	Small pox	Scarlet Fever	Diph-theria	Enteric Fever	Erysi-pelas	Puerperal Fever	Acute Poliomyelitis	Total
To Jan. 4	...	...	...	...	...	...	...	...
Week ended.								
Jan. 11	...	...	...	...	...	...	...	...
,, 18	...	...	...	...	...	...	...	...
,, 25	...	...	...	...	...	..	...	...
Feb. 1	...	...	1	...	...	...	...	1
,, 8	...	3	...	...	1	...	...	4
,, 15	...	1	1	...	...	...	...	2
,, 22	...	1	2	1	...	...	...	4
Mar. 1	...	...	1	...	...	...	...	1
,, 8	...	. .	1	...	...	...	...	1
,, 15	...	1	1	...	1	...	...	3
,, 22	...	...	...	...	...	..	...	...
,, 29	...	2	...	...	...	...	...	2
April 5	...	1	...	...	...	...	...	1
,, 12	...	...	...	...	...	...	...	...
,, 19	...	...	2	...	1	...	...	3
,, 26	...	...	2	...	...	...	...	2
May 3	...	...	...	...	...	...	...	...
,, 10	...	2	...	...	...	...	...	2
,, 17	...	...	2	...	...	...	...	2
,, 24	...	...	...	...	...	...	...	...
,, 31	...	2	1	...	...	...	...	3
June 7	...	1	...	...	...	...	...	1
,, 14	...	2	1	...	...	...	...	3
,, 21	...	2	...	...	...	...	...	2
,, 28	...	2	...	...	...	...	...	2
July 5	...	...	...	1	...	...	...	1
,, 12	...	1	1	...	...	...	...	2
,, 19	...	4	1	...	...	...	...	5
,, 26	...	2	...	..	...	...	...	2
Aug. 2	...	...	...	...	1	...	...	1
,, 9	. .	...	...	...	1	...	...	1
,, 16	...	...	...	...	...	...	...	...
,, 23	...	1	...	...	...	...	...	1
,, 30	...	2	...	1	1	...	...	4
Sept. 6	...	3	1	1	...	...	...	5
,, 13	...	1	1	...	2	...	...	4
,, 20	...	1	...	...	...	...	...	1
,, 27	...	2	1	1	...	...	...	4
Oct. 4	...	1	...	...	...	...	...	1
,, 11	...	1	..	...	...	...	...	1
,, 18	...	2	2	...	...	...	...	4
,, 25	. .	3	2	...	...	...	...	5
Nov. 1	...	3	4	...	...	...	...	7
,, 8	...	3	4	...	...	...	...	7
,, 15	...	4	9	...	...	...	...	13
,, 22	...	1	5	...	...	...	...	6
,, 29	...	...	5	...	1	...	...	6
Dec. 6	...	1	2	...	...	...	...	3
,, 13	...	1	...	...	...	...	...	1
,, 20	...	1	1	...	...	...	...	2
,, 27	...	...	...	...	...	...	...	...
To Dec. 31	...	...	1	...	...	...	...	1
Total for 1913	...	58	55	5	9	...	...	127
,, 1912	...	38	12	1	10	...	1	62
,, 1911	...	32	18	4	12	1	...	67
,, 1910	...	32	16	0	13	1	...	62

Isolation Hospitals.

The Isolation Hospital is situated at Thistle Hill about three miles from Harrogate. It is a Joint Hospital serving the three districts of Harrogate Borough, Knaresborough Urban, and Knaresborough Rural Districts, and is managed by a Joint Committee composed of members of each of the Councils of these three districts.

There is accommodation for fifty patients and three diseases, viz :—scarlet fever, diphtheria, and enteric fever, can be treated concurrently.

The accommodation appears to be sufficient for the ordinary needs of the district.

The Smallpox Hospital, which is also a Joint Hospital under the control of the same Committee, is situated on the Corporation Farm just outside the Borough Boundary.

It has accommodation for 28 patients, and is kept constantly ready to receive patients at short notice.

Smallpox.

No case of smallpox was notified during the year. The last case to occur was in 1905, when there was one case.

In England and Wales 90 cases of smallpox were notified during 1912.

In the beginning of the present year, however, one case was notified. The patient who had been spending a holiday in Egypt apparently contracted the infection in that country. He became ill two days after his arrival in Harrogate, and the medical man who was called to attend him at once recognised the condition and notified the case. He was removed to the smallpox hospital and every precaution taken to prevent any spread of the disease.

No further cases occurred.

Scarlet Fever.

There were 58 cases of scarlet fever notified during 1913 as compared with 38 in 1912. The attack rate is therefore 1·66 per 1,000 compared with 1·10 in 1912. The average rate for the ten years 1903-1912 was 2·49.

The attack rate in England and Wales during 1913 was 3·57, and in the Non-County Boroughs and Urban Districts of England (of which Harrogate is one) it was 3·18.

SCARLET FEVER STATISTICS.

Year	Population	Notfiications	Attack Rate per 1000	Deaths	Death Rate	Case Mortality per cent	Removed to Hospital	Percentage Removed
1897	18,500	25	1·35	1	0·05	4·0	11	44·0
1898	19,500	17	0·87	0	0·00	0·0	2	11·8
1899	20,000	14	0·70	0	0·00	0·0	5	35·7
*1900	30,000	39	1·30	1	0·03	2·6	22	56·4
1901	29,000	34	1·17	0	0·00	0·0	9	26·5
1902	30,000	75	2·50	0	0·00	0·0	52	69·3
1903	30,000	42	1·40	1	0·03	2·4	20	47·6
1904	30,500	114	3·74	2	0·07	1·8	67	58·8
†1905	31,000	152	4·90	6	0·19	3·9	78	51·3
1906	31,500	114	3·62	1	0·03	0·9	72	63·2
1907	32,000	117	3·66	2	0·06	1·7	86	73·5
1908	32,000	114	3·56	1	0·03	0·9	76	66·7
1909	33,000	33	1·00	1	0·03	3·0	23	69·7
1910	33,500	32	0·96	0	0·00	0·0	26	81·2
1911	33,840	32	0·95	0	0·00	0·0	29	90·6
1912	34,400	38	1·10	0	0·00	0·0	32	84·2
1913	34,960	58	1·66	0	0·00	0·0	46	79·0

* Borough extended. † New Isolation Hospital opened.

The distribution of the cases in the various Municipal Wards is as follows :—

Ward	Central	East	West	Bilton	Starbeck
Cases	7	15	11	12	13

The following table shows the age and sex incidence of the disease in Harrogate.

	Under 1 year	From 1 to 5 yrs.	From 5 to 15 yrs.	From 15 to 25 yrs.	From 25 to 45 yrs.	45 years upwards	Total
Males	...	4	13	5	2	...	24
Females	...	1	21	5	6	1	34
Total	...	5	34	10	8	1	58

SCHOOLS ATTENDED.

In 27 instances the child affected was attending a public elementary school. The schools affected and the number of cases occurring in each are as follows :—

Church Square (Mixed)	6 cases
Western Council (Mixed)	4 ,,
Church Square (Infants)	3 ,,
Starbeck Council (Mixed)	3 ,,
Bilton Endowed (Mixed)	3 ,,
Western Council (Infants)	2 ,,
Grove Road Council (Infants) ...	2 ,,
,, ,, (Mixed) ...	1 case
Bilton Council (Mixed)	1 ,,
St. Robert's R.C. (Mixed) ...	1 ,,
Bilton Endowed (Infants)	1 ,,

One child was found attending Church Square School in the desquamating stage, and she was undoubtedly responsible for at least three cases which occurred among other children attending the same school.

HOUSES INVADED.

Five cases occurred in public institutions in the town ; three cases in the Infirmary (a nurse and two patients) ; and two cases in the Police Orphanage (both children). The remaining 53 cases occurred in ordinary dwelling houses.

One case occurred in each of 33 houses, 5 houses had two cases, 2 houses had three cases, and one house had four cases each.

ISOLATION.

Of the 58 cases notified, 46 (or 79 per cent.) were removed to the Isolation Hospital.

The disease was apparently of a mild type ; for the fourth year in succession there were no fatal cases, and the death-rate is therefore nil.

The death-rate in England and Wales was 0·06, and in the 145 smaller towns (of which Harrogate is one) it was 0·05.

Diphtheria.

DIPHTHERIA STATISTICS.

Year	Population	Notfications	Attack Rate per 1,000	Deaths	Death Rate per 1,000	Case Mortality per cent	Removed to Hospital	Percentage Removed
1897	18,500	3	0·16	1	0·05	33·3	0	0·0
1898	19,500	3	0·15	2	0·10	66·7	0	0·0
1899	20,000	42	2·10	11	0·55	26·2	0	0·0
*1900	30,000	153	5·10	18	0·60	11·8	0	0·0
1901	29,000	59	2·03	9	0·31	15·3	1	1·7
1902	30,000	30	1·00	2	0·07	6·7	0	0·0
1903	30,000	27	0·90	2	0·07	7·4	3	11·1
1904	30,500	53	1·74	3	0·09	5·7	2	3·7
†1905	31,000	71	2·29	9	0·29	12·7	30	42·3
1906	31,500	119	3·78	7	0·22	5·8	53	44·5
1907	32,000	64	2·00	9	0·28	14·1	36	56·3
1908	32,000	55	1·72	6	0·19	10·9	28	50·9
1909	33,000	16	0·48	0	0·00	0·0	12	75·0
1910	33,500	16	0·48	0	0·00	0·0	13	81·3
1911	33,840	18	0·53	1	0·03	5·6	13	72·2
1912	34,400	12	0·35	1	0·03	8·3	6	50·0
1913	34,960	55	1·57	2	0·06	3·6	41	74·5

* Borough extended. † New Isolation Hospital opened.

During 1913 there were 55 cases of diphtheria notified as compared with 12 in 1912.

The age and sex distribution of the cases was as follows :—

	1-5	5-15	15-25	25-35	35-45	Total
Males	6	17	...	...	1	24
Females	3	18	9	1	...	31
Total	9	35	9	1	1	55

The next table shows the number of cases notified from each Ward during each month.

	Central	East	West	Bilton	Starbeck	Total
January...	...	...	1	...	...	1
February	2	...	..	1	1	4
March ...	...	...	2	...	...	2
April ...	...	1	1	...	2	4
May ...	...	...	3	...	...	3
June ..	...	...	1	...	...	1
July ..	...	1	...	1	...	2
August ...	...	...	...	...	...	..
Sept'mber	...	1	2	...	..	3
October...	...	5	...	1	...	6
November	...	10	1	...	14	25
December	...	2	1	...	1	4
Total ...	2	20	12	3	18	55

There were 45 houses invaded ; 36 houses had one case each, 8 houses had two cases each, and in one house there were three cases.

In 50 cases swabs taken from the throat were examined bacteriologically ; 41 gave a positive result and 9 were negative.

In 29 instances the child affected was attending a public elementary school. The schools in which the cases occurred were :—

Starbeck Council (Infants)	...	9 cases
,, ,, (Mixed) ...	...	5 ,,
Grove Road Council (Infants)	...	6 ,,
,, ,, (Junior)	...	2 ,,
Western Council (Mixed) ...	...	1 case
Church Square (Mixed) ...	...	1 ,,
Bilton Endowed (Mixed) ...	...	1 ,,
St. Robert's R.C. (Infants)	...	1 ,,
S. Peter's C. of E. (Infants)	...	1 ,,
Church Square (Infants) ...	. .	1 ,,
Bilton Council (Mixed) ...	...	1 ,,

Of the 55 cases notified, 41 (74·5 per cent.) were removed to the Isolation Hospital. The proportion of cases removed would have been higher but for the fact that during the month of November when the disease was most prevalent the accommodation at the hospital was taxed to its limit, and some cases were isolated at home which would otherwise have been removed.

There were two deaths, giving a case mortality of 3·6 per cent. as compared with 8·3 for 1912, and an average of 7·1 for the previous ten years.

The fatal cases occurred in the the Bilton and Starbeck Wards. Both were males aged 6 and 3 years respectively, and in both cases no suitable medical treatment was obtained until several days—in one case ten days—had elapsed from the commencement of the illness.

Both deaths occurred in the early part of the year when there was no marked prevalence of the disease.

RETURN CASES.

The term "return case" is applied to a case which has been infected by a former case, the "infecting case," after the liberation of the latter from isolation.

There was only one return case during the year. In this instance the return case became ill a fortnight after the infecting case returned from hospital, and a swab taken from the latter showed that he was still infective, although swabs taken before his discharge had proved negative.

There was a considerably increased prevalence of diphtheria during the year, the number of cases notified being the largest since 1908. The attack rate is 1·57 per 1,000, and is much above the rate for 1912 (0·35), and is also higher than the average annual rate for the preceding ten years (1·43).

The attack rate for England and Wales during 1913 was 1·39, and for the aggregate of the Non-County Boroughs and Urban Districts it was 1·41 per 1,000.

Although diphtheria has been somewhat more prevalent in Harrogate than in the rest of the country, it would seem to have been of a milder type. The case mortality is 3·6 per cent. as compared with an average annual case mortality during the preceding ten years of 7·1 per cent. The death rate was 0·06 per 1,000, and although higher than the rate in 1912 (0·03), is a good deal lower than the average rate for the preceding ten years (0·12).

The death rate in England and Wales during 1913 was 0·12; in the 96 Great Towns it was 0·13; in the 145 Smaller Towns 0·11; and in the rest of England and Wales it was also 0·11. It will be observed that the Harrogate death rate is about half that of the rest of the country.

As is usually the case the incidence was heaviest among children between 5 and 15 years of age, and rather more females than males were attacked.

From the table showing the monthly notifications from the different Wards it will be seen that the prevalence was highest in the fourth quarter and especially in the month of November, in which month nearly one half of all the cases were notified.

During the first three quarters the West Ward suffered most while the rest of the town was almost entirely free. Cases kept cropping up pretty regularly throughout the whole of this period, and with the exception of two secondary cases occurring in two houses there did not appear to be any connection between the cases. At no time was there any suggestion of an epidemic, and there are good grounds for believing that a not inconsiderable proportion of the cases were not true diphtheria.

During the fourth quarter the disease was almost entirely confined to the East and Starbeck Wards, 17 cases being notified from the East and 15 from the Starbeck Wards.

Careful enquiry was made in every case into the milk supply, and on no occasion was any evidence obtained to show that this was in any way implicated. Nor with the exception of Starbeck did the schools appear to play any important part in the spread of the disease.

In a considerable proportion of the cases in the East Ward the infection was traced to a "missed" case, and in Starbeck mild unrecognised cases attending the school appear to have been responsible for the prevalence of the disease there. I append a short account of the progress of the disease in each of these Wards.

In nine of the cases in the East Ward there was definite history of personal contact with each other, and the primary source of infection was a missed case. These nine cases occurred in five houses in Waterloo Street, there being two houses with two cases each and one house with three cases. The first case was notified on October 30th, and the last on December 29th. On making enquiry into one of the last cases to be notified from this locality it was discovered that another child who had been under medical treatment since the beginning of October had developed a squint, and was also suffering from paralysis of the soft palate, and a swab taken at this time gave a positive result.

It would seem that when this child first became ill there was a suspicion that the illness was diphtheria, but as a swab taken at that time was negative, this suspicion was dismissed, and no precautions whatever were taken until the occurrence of the second case. As this boy had been ill since the beginning of October, and as during the whole of the time other members of the family were mixing freely with other residents in the street, there can be little doubt that he was primarily responsible for the spread of the disease in this district. In four cases which occurred in the Regent Estate there was also some evidence of personal contact, and there was a possible connection with the Waterloo Street cases inasmuch as one of the infected families in the Regent Estate was related to the missed case mentioned above.

In the other cases occurring in this Ward no evidence of contact with other cases could be obtained.

In the small outbreak in the Starbeck Ward there was every evidence that the infection was spread by school contact. Of 41 cases notified during this quarter 13 occurred in school-children, of whom ten were in more or less regular attendance at school up to the time of their discovery. Swabs taken from school contacts discovered 8 "carriers"; there were therefore 21 infective cases among school children, 18 of whom were in attendance at school up to the time of their discovery.

If it had been possible to take swabs from all children attending school this would have been done and all carriers excluded.

It was, however, found impossible to do this, and as the infection seemed to be widespread throughout the school it was thought advisable to close the school, and this was done on November 25th. Closure of the school was followed by a sudden drop in the number of notifications, only one case being notified during December.

With the closure of the school the children of course were no longer under observation, and there may have been several slight unrecognised cases. But as since the re-opening of the school in the beginning of January only 6 cases have been notified from Starbeck (1 in January, 2 in February, and 3 in March), of whom 4 were school-children, it would seem that the measures adopted have been successful in checking the outbreak.

The primary source of infection was undoubtedly a mild unrecognised case. Two children — brothers — who had slight sore throat about the end of October, continued in attendance with only an absence of one or two days until November 10th, on which date swabs taken from their throats gave positive results. Another child who had been absent on account of "sore throat" from the middle of October until the beginning of November was also found to give a positive swab, and there can be little doubt that these three children, none of whom was attended by a doctor, had had a mild attack of diphtheria. So far as could be discovered these appear to have been the first cases to occur, and it would seem that one or other was responsible for the outbreak.

During the first three months of the present year diphtheria continued to be somewhat unduly prevalent in Harrogate, 21 cases being notified up to the 13th March. Since that date, however, no cases have been notified, and at the time of writing the town is entirely free from the disease.

MEASURES TAKEN TO PREVENT THE SPREAD OF THE DISEASE.

In dealing with diphtheria, in addition to the ordinary measures of isolation, disinfection, etc., which are common to all notifiable infectious diseases and which have been detailed in former reports, systematic search is made for "carriers."

By a carrier is meant a person who though not actually suffering from diphtheria nevertheless harbours in his throat or elsewhere the diphtheria bacillus. Such individuals, although apparently in perfect health, may in certain circumstances give rise to diphtheria in other persons, and are therefore a potential source of danger to those with whom they may come in contact.

Swabs were taken from susceptible contacts of cases notified during the year and submitted to bacteriological examination, with the result that 20 carriers were discovered. These carriers or their parents were warned of the importance of the condition and urged to obtain suitable treatment and isolation. Those who were unable or unwilling to obtain medical treatment were provided with suitable applications and instructed in their use, so that all cases received more or less efficient treatment. In the majority of instances, however, it was found impossible to obtain any isolation at all. While the parents were in most cases not unwilling to take suitable precautions for a week or two, they perhaps not unnaturally objected to continue these precautions over the lengthy period—often many weeks—which frequently elapsed before the carrier could be declared free from infection.

No carrier was allowed to return to school until three consecutive swabs had given a negative result, and during the infective period the home was visited frequently and every effort made to induce the parents to continue taking precautions.

Provision of Diphtheria Antitoxin.

Diphtheria Antitoxin is supplied by the Corporation free of cost to any medical man who makes application.

The demand continues to be very small; only 6,000 units were supplied for use in two cases, at a total cost of 8/3.

The small demand is no doubt largely due to the fact that the great proportion of the poorer cases were promptly removed to the Isolation Hospital.

Enteric Fever.

Year	Population	Notfications	Attack Rate per 1,000	Deaths	Death Rate per 1,000	Case Mortality per cent	Removed to Hospital	Percentage Removed
1897	18,500	4	0·22	0	0·00	0·0	0	0·0
1898	19,500	9	0·46	2	0·10	22·2	0	0·0
1899	20,000	7	0·35	4	0·20	57·1	0	0·0
†1900	30,000	13*	0·43	5*	0·17	38·4	6	46·1
1901	29,000	72	2·48	12	0·41	16·7	10	13·9
1902	30,000	15	0·50	4	0·13	26·7	0	0·0
1903	30,000	9*	0·30	1	0·03	11·1	3	33·3
1904	30,500	3	0·09	0	0·00	0·0	0	0·0
‡1905	31,000	5	0·16	0	0·00	0·0	0	0·0
1906	31,500	5	0·16	1	0·03	20·0	1	20·0
1907	32,000	4	0·13	1	0·03	25·0	1	25·0
1908	32,000	5	0·16	1	0·03	20·0	2	40·0
1909	33,000	6	0·18	1	0·03	16·7	4	66·7
1910	33,500	0	0·00	0	0·00	0·0	0	0·0
1911	33,840	4	0·12	2	0·06	50·0	1	25·0
1912	34,400	1	0·03	0	0·00	0·0	0	0·0
1913	34,960	5	0·14	1	0·03	20·0	2	40·0

* Including Continued Fever. † Borough extended.
‡ New Isolation Hospital opened.

There were 5 cases of this disease notified as against 1 case in 1912, and the attack rate is 0·14 compared with 0·03 in 1912.

The rate for England and Wales was 0·22; for the Non-County Boroughs and Urban Districts it was 0·24.

There was one death, giving a case mortality of 20 per cent. and a death rate of 0·03 per 1,000 of the population.

The death rate for England and Wales was 0·04 and for the 145 smaller towns it was 0·05.

In two of the cases notified the infection was undoubtedly contracted in other districts.

Two cases were removed to the Isolation Hospital; the remaining three cases were well isolated at home.

I append short notes of each of the cases.

CASE 1. (West Ward.) Male aged 12, a schoolboy attending Western School. Sickened about February 11th; was well isolated and nursed at home. Widal's test was not made use of. The source of infection could not be discovered. The house was a seven-roomed through house with no marked sanitary defects.

CASE 2. (Central Ward). Male aged 38. Arrived in Harrogate on June 21st, and sickened three days later. Removed to Isolation Hospital.

CASE 3. (Central Ward.) Female aged 58. Sickened about August 2nd. Nursed at home and died on September 3rd, 1913. This was apparently not a typical case. Widal's reaction was negative, and there seems to have been some doubt as to whether it really was a case of Enteric Fever. The house was a large house in excellent sanitary condition.

CASE 4. (Starbeck Ward.) Female aged 7. Arrived in Harrogate on August 16th. Was out-of-sorts then, and became definitely ill about August 24th. Nursed at home. Widal's reaction gave positive result. The house was a six-roomed through house in good sanitary condition.

CASE 5. (Bilton Ward.) Male aged 38. Sickened about September 17th. Removed to Isolation Hospital. Was employed as labourer at building operations at Pannal. Widal's test was not made use of.

Erysipelas.

Nine cases of erysipelas were notified during 1913 as compared with ten cases in 1912. No deaths were registered as being caused by this disease.

Two cases were notified from the Central; three from the East; three from the Bilton; and one from the Starbeck Wards.

Measles.

For the second year in succession the town has enjoyed an almost complete immunity from measles. Only 8 cases were notified from the schools; in 1912 6 cases; in 1911, 242; and in 1910, 400 cases were so notified.

There were no deaths, and the death rate is therefore nil. The death rate for 1912 was 0·03 per 1,000, and for the ten years 1903 to 1912 it was 0·11.

The Registrar General in his Annual Summary states that the death rate for England and Wales during 1913 was 0·28, and for the 145 smaller towns including Harrogate it was 0·30 per 1,000.

MEASLES DEATH RATE IN HARROGATE.

1901	0·00	1907	0·03
1902	0·00	1908	0·00
1903	0·27	1909	0·18
1904	0·03	1910	0·09
1905	0·00	1911	0·03
1906	0·44	1912	0·03
1913	0·00		

Whooping Cough.

Whooping cough, like measles, was also almost entirely absent during the year. Only 2 cases were notified from the schools as compared with 39 in 1912, and 183 in 1911.

No deaths were registered as being due to whooping cough, and the death rate is therefore nil. The rate for 1912 was 0·12 per 1,000, and for the ten years 1903 to 1912 it was 0·16.

The rate for England and Wales during 1913 was 0·14, and for the 145 smaller towns it was 0·13.

DEATH RATE FROM WHOOPING COUGH
IN HARROGATE.

1901	0·00	1907	0·06
1902	0·03	1908	0·19
1903	0·13	1909	0·12
1904	0·39	1910	0·12
1905	0·29	1911	0·15
1906	0·00	1912	0·12
1913	0·00		

Acute Poliomyelitis.

By an Order of the Local Government Board, this disease has been compulsorily notifiable since September 1st, 1912.

No cases were notified during the year.

Cerebro-Spinal Fever.

This disease was made notifiable at the same time as acute poliomyelitis. No cases were notified during the year.

Diarrhœa and Enteritis.

DEATHS AND DEATH RATE FROM DIARRHŒA AND ENTERITIS.

Year	Number of Deaths	Rate per 1,000
1901	22	0·76
1902	9	0·30
1903	13	0·43
1904	17	0·56
1905	13	0·42
1906	27	0·86
1907	5	0·16
1908	10	0·31
1909	7	0·21
1910	13	0·39
1911	17	0·50
1912	3	0·09
1913	9	0·25

During 1913 there were 9 deaths registered as being caused by these diseases, giving a death rate of 0·25 per 1,000.

This is higher than the rate for 1912 (0·09) which was the lowest recorded, but is considerably below the average for the ten years 1903 to 1912 (0·40).

Six of the deaths were males and three were females. Six were under 1 year of age; one was between 1 and 2 years; one between 2 and 5 years; and one was 82 years of age.

It is interesting to note that four of the deaths under one year of age occurred among bottle-fed babies.

The following table compares the diarrhœa death rates in Harrogate and England and Wales stated in terms of deaths under 2 years of age per 1,000 births.

England and Wales ..	23·41	per 1,000 births
96 Great Towns	29·33	,, ,,
145 Smaller Towns ...	24·73	,, ,,
England and Wales less the 241 Towns ..	14·39	,, ,,
Harrogate...	12·03	,, ,,

It will be seen that Harrogate compares favourably with the rest of the country.

As has been explained in previous reports the group of diseases comprised under this heading is of microbic origin, and their incidence is greatest in warm dry summers. They are filth diseases, and are to a very large extent preventable.

The special measures taken during the year with a view to their prevention are briefly as follows: —

(*a*) Frequent inspections during the summer months by the Sanitary Inspectors of all yards and back premises in their districts with a view to securing their thorough cleansing where necessary and the prompt removal of all decaying matter.

(*b*) The emptying of all manure pits at least twice a week during the months of May to November.

(*c*) In the beginning of July a printed leaflet giving simple instructions for the prevention of diarrhœa was sent by post to every house in which a child had been born during the preceding twelve months.

Puerperal Fever.

No case of puerperal fever was notified during the year.

Three deaths, however, were registered as being due to other causes associated with child-birth, giving a proportion of one death to 194 live births. In 1912 the proportion was one death to 250 live births.

Tuberculosis.

During 1913 there were 23 deaths—3 more than in 1912—registered as being caused by some form of tuberculosis. The death rate is therefore 0·65 per 1,000 of the population. This is slightly above the rate for 1912 (0·58), but considerably below the average rate for the preceding ten years (1·06).

Non-Pulmonary Tuberculosis.

Tuberculous diseases, other than phthisis caused 4 deaths—1 less than in 1912—and the death rate is therefore 0·11 per 1,000. This is, with the exception of 1907 when the rate was 0·09, the lowest rate of which I have any record. The rate for 1912 was 0·14, and for the preceding ten years it was 0·29.

Two of the deaths were females and two were males.

Three deaths were caused by tuberculous meningitis, two females and one male, all between 1 and 5 years of age.

One death, a male aged 57, was due to chronic non-pulmonary tuberculosis.

Only one of the deaths had been previously notified.

Phthisis.

During the year 19 deaths were caused by Phthisis or Pulmonary Tuberculosis, and the death rate is 0·53 per 1,000 as compared with 0·44 in 1912 and 0·77 for the preceding ten years.

The following table gives the number of deaths and the annual death rates from Phthisis and Other Tuberculous Diseases for each year since 1896.

TUBERCULOSIS DEATH-RATE, 1896-1913.

Year	Phthisis		Other Tuberculous Diseases	
	Number of Deaths	Death Rate per 1,000	Number of Deaths	Death Rate per 1,000
1896	20	1·14	11	0·63
1897	19	1·03	7	0·38
1898	17	0·87	14	0·72
1899	18	0·90	6	0·30
1900	17	0·57	6	0·20
1901	17	0·59	18	0·62
1902	27	0·90	12	0·40
1903	35	1·16	23	0·77
1904	22	0·72	10	0·33
1905	28	0·90	13	0·42
1906	21	0·67	11	0·35
1907	30	0·94	3	0·09
1908	31	0·97	7	0·22
1909	26	0·79	7	0·21
1910	12	0·36	5	0·15
1911	25	0·74	8	0·23
1912	15	0·44	5	0·14
Average for ten years 1903-1912	25	0·77	9	0·29
1913	19	0·53	4	0·11

In the next table I give the average annual death rates for each period of five years since 1896.

Quinquennial Period	Death Rate from Phthisis	Death Rate from Other Tuberculous Diseases
1896 to 1900	0·90	0·45
1901 to 1905	0·85	0·51
1906 to 1910	0·75	0·20
1911	0·74	0·23
1912	0·44	0·14
1913	0·53	0·11

These figures show that there has been a steady fall in the death rate during this period.

The age and sex distribution of the deaths from Phthisis was as follows :—

Age	0-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	Total
Males	1	...	...	1	3	4	4	1	14
Females	...	...	2	...	1	1	1	...	5
Total	1	...	2	1	4	5	5	1	19

This table shows that there was an unusual preponderance of male deaths, and also that the greatest number of deaths—14 out of 19—occurred between the ages of 25 and 55 years, in other words during the productive period of life.

The deaths were distributed in the various Wards, thus :—

Central		East		West		Bilton		Starbeck
6	...	4	...	2	...	4	...	3

Of the 19 deaths 16 had been previously notified.

The interval which elapsed between the date of notification and the date of death is shown in the next table.

6 died within 1 month after notification
1 ,, between 1 and 2 months after notification
1 ,, ,, 2 ,, 3 ,, ,,
1 ,, ,, 4 ,, 5 ,, ,,
1 ,, ,, 6 ,, 7 ,, ,,
2 ,, ,, 7 ,, 8 ,, ,,
1 ,, ,, 9 ,, 10 ,, ,,
1 ,, ,, 10 ,, 11 ,, ,,
2 ,, more than 12 ,, ,,

It will be observed that one-third of the deaths occurred within one month of notification.

Notification of Tuberculosis.

Prior to 1913 pulmonary tuberculosis was notifiable under three Orders of the Local Government Board.

The regulations which came into force in 1909 required the notification of all poor law cases; those in 1911 required of all hospital cases; and those coming into force in 1912 required all cases of pulmonary tuberculosis to be notified.

The Public Health (Tuberculosis) Regulations, 1912, which were issued in December, 1912, consolidate and amend the previously issued Regulations. They came into force on 1st February, 1913, and require all forms of tuberculous disease—non-pulmonary as well as pulmonary—to be notified. The following is a summary of the principal provisions.

> Every medical practitioner attending upon any person, whether at an institution or otherwise, who is suffering from tuberculosis is required to send a notification to the Medical Officer of Health for the district in which the patient resides. A practitioner need not notify a case if he has reason to believe that the case has already been notified.
>
> School Medical Inspectors are required to notify weekly all cases of tuberculosis discovered by them among children attending elementary schools. These

notifications are to be sent to the Medical Officer of the districts in which the notified children reside.

Relieving Officers are not now required to notify, but the Medical Officers of Poor Law Institutions and of Sanatoria are required to notify all cases admitted to the Medical Officer of Health for the district from which the patient came, and all cases discharged to the Medical Officer of Health for the district to which they are discharged.

The diagnosis that a person is suffering from tuberculosis is to be founded upon evidence other than that solely derived from tuberculin tests.

The Medical Officer of Health for an Urban District is required to send to the County Medical Officer a weekly list of all notifications received by him relating to persons residing within the district for which he is Medical Officer of Health.

A Local Authority is empowered to supply all such medical and other assistance, and all such articles as may be reasonably required for the detection of tuberculosis, and for preventing the spread of infection, etc. They may also provide and distribute summararies of information and instruction respecting tuberculosis.

This year is therefore the first in which the notification of all forms of tuberculous disease has been compulsory.

During the year 102 notifications were received ; 7 of these referred to persons who had been previously notified, and 2 related to persons who resided in other districts. The number of new cases notified during the year was therefore 93 ; of these 52 were cases of pulmonary tuberculosis and 41 were cases of non-pulmonary tuberculosis.

Non-Pulmonary Tuberculosis.

The age and sex distribution of the persons notified as suffering from tuberculosis of other organs than the lungs is shown in the following table.

Age	1-5	5-15	15-25	25-35	35-45	45-55	Total
Males	2	12	2	1	...	1	18
Females	...	10	5	6	2	...	23
Total	2	22	7	7	2	1	41

The cases occurred in the following Wards :—

Central	East	West	Bilton	Starbeck
15	12	2	6	6

The large number of cases occurring in the Central Ward is accounted for by the fact that 10 cases were notified from a home for cripples which is situated in that Ward.

The following table shows the organs affected :—

Glands	12
Hip	8
Spine	3
Knee	3
Mesenteric Glands	2
Brain and Meninges	2
Peritoneum	2
Skin	1
Rectum	1
Iris	1
Elbow	1
Abdomen	1
Kidney	1
Fallopian Tubes	1
Wrist	1
Hip and Spine	1

Pulmonary Tuberculosis (Phthisis).

During the year 52 cases were notified ; 32 were males and 20 females, and the age distribution is as follows :—

Age	5-15	15-25	25-35	35-45	45-55	55-65	65 up.	Total
Males	8	3	7	10	2	2	...	32
Females	8	1	6	4	...	...	1	20
Total	16	4	13	14	2	2	1	52

The cases were notified from the various Wards as follows :—

Central	East	West	Bilton	Sarbeck
7	22	2	13	8

It will be observed that much the largest number of cases both of pulmonary and non-pulmonary tuberculosis have been notified from the East Ward.

In three of the notified cases no visit was made, at the request of the medical attendant, and one patient had left the district before a visit was paid and no information could be obtained regarding him. The following summary relates therefore to 48 cases.

Duration of Illness.—Phthisis is of course an insiduous disease, and in the vast majority of cases the onset is very gradual, and it is impossible to fix any definite date as that on which the disease actually commenced.

The interval between the appearance of the first symptoms and the date of notification was stated by the patient or his relatives to be less than one year in 21 cases ; in 11 cases it was between 1 and 2 years ; and in 15 cases over 2 years. In one case no information on this point could be obtained.

Family History.—Enquiry was made in every case into the family history and fairly reliable information was obtained in 44 cases. In 18 or 41 per cent. there was a definite history of tuberculosis in the family ; in 26 or 59 per cent. no cases of tuberculosis were known to have occurred in the family.

Housing Conditions.—The houses in which these cases occurred were all through houses ; 13 were three-roomed houses ; 11 had 4 rooms ; 12 had 5 rooms ; and in the remaining 12 houses there were 6 or more rooms.

In 19 instances the patient occupied a separate bedroom ; 12 of the cases had the sole use of a bed though other members of the household slept in the same room ; and in 17 cases there was no attempt at isolation.

In two instances the houses were found to be overcrowded, but after some difficulty this was remedied.

OCCUPATIONS.—The occupations of the males were as follows :—

Schoolboys	6	Goldminer	1
Joiners	2	Gardener	1
Railway Firemen ...	2	Roadsweeper	1
Labourers	2	Student	1
Carter	1	Blacksmith	1
Indian Civil Servant	1	Railway Warehouseman	1
Solicitor	1	Railway Carriage Cleaner	1
Insurance Agent ...	1	Shop Assistant	1
Coal Merchant ..	1	Clerk	1
Waiter	1	No occupation	1
Railway Guard ...	1		

The occupations of the females were :—

Schoolgirls... ...	7	Theatre Attendant ...	1
Housewives ...	6	Charwoman	1
Domestic Servants	2	No occupation	2

Control over Tuberculosis.

Measures directed to control tuberculosis and prevent its spread have followed on the same lines as in former years.

All cases of phthisis notified are visited by the Health Visitor, with the exception of those cases where the notifying practitioner requests that no visit be made. As these cases are without exception well-to-do people living in good houses this request is always respected.

Advice is given as to the best methods of preventing any spread of the disease, stress being laid upon the danger of the sputum and the proper method of disposing of it. Every effort is made to ensure that the patient occupies a separate room, or if this is impossible, a separate bed, and the advantages of fresh air and sunlight are insisted upon.

Any sanitary defects found to exist are remedied.

Disinfectants are provided free of all cost, and disinfection of houses is carried out after death or removal—35 houses were disinfected during the year, 17 after death and 18 after removals.

So far as is possible all cases of phthisis are kept under observation, and are visited as frequently as seems advisable or as circumstances will permit. During the year the Health Visitor paid 242 visits to persons suffering from tuberculosis.

Up to the end of the year the West Riding County Council, who are responsible for carrying out the sanatorium provisions of the National Insurance Act, had not succeeded in obtaining suitable premises in Harrogate for a tuberculosis dispensary and consequently the benefits of such an institution were not available locally. In the beginning of the present year (1914), however, suitable premises were obtained and a dispensary has now been established.

Cancer.

Under this heading are included deaths from all forms of malignant disease.

During 1913 there were 40 deaths—11 more than in 1912—giving a death rate of 1·12 per 1,000.

1901	0·59	1907	0·81
1902	0·63	1908	0·75
1903	0·93	1909	0·85
1904	1·41	1910	1·04
1905	0·97	1911	0·97
1906	0·98	1912	0·84
1913	1·12		

Last year I had to record a slight decrease in the death rate. This year there is a marked increase, and the present rate is with one exception the highest of which I have any record.

The age and sex incidence are shown in the following table. It will be seen that 60 per cent. of the deaths were females:—

Age	Under 45	45-55	55-65	65-75	75-85	85 upwards	Total
Males	2	3	4	5	2	...	16
Females	2	4	5	10	1	2	24
Total	4	7	9	15	3	2	40

The following table shows the organs affected.

Organ	Males	Females	Total
Stomach...	3	5	8
Liver	1	7	8
Intestines	2	2	4
Oesophagus	2	1	3
Rectum	1	2	3
Breast	...	3	3
Female Genital Organs	...	2	2
Urinary Organs ...	2	...	2
Mouth	2	...	2
Peritoneum	1	...	1
Neck	1	...	1
Lung	1	...	1
Pancreas...	...	1	1
Skin	...	1	1
Total	16	24	40

In spite of the researches which numerous investigators have been making for many years, we are still without that knowledge of the cause of the disease which would enable us to bring it within the domain of preventive medicine.

Influenza.

Influenza appears to have been more prevalent during the year. Nine deaths were registered as being due to this cause, as against two in 1912. Four were males and five were females.

One was 26 years of age; two were between 60 and 65 years; and six were over 65 years of age.

Disinfection.

The disinfection of dwelling houses in which cases of infectious disease have occurred is carried out by the Corporation staff. The means employed is the formalin spray. During the year 156 dwelling houses were so disinfected.

The Corporation does not possess a disinfecting station, and all articles of bedding, clothing, etc., are removed to the Joint Isolation Hospital and there disinfected in a Washington Lyons Disinfector. Two vans are in use; one for removing infected clothing, and one for returning it after disinfection.

The following articles were disinfected during the year :—

Beds	111
Mattresses	183
Blankets	104
Sheets	227
Quilts	211
Pillows	318
Bolsters	109
Pillow Slips	165
Carpets	182
Rugs	98
Curtains	192
Articles of Clothing ...	467
Miscellaneous	547
Total ...	2,914

Bacteriological Examination.

The bacteriological examination of material from suspected cases of diphtheria, enteric fever, etc., is carried out by the County Council at their laboratory at Wakefield at the public expense. Outfits for sending the material to be examined are kept at the Public Health Office and may be obtained by any medical practitioner upon application.

The following table, for which I am indebted to Dr. Kaye, the County Medical Officer, shows the number of specimens forwarded to the laboratory in 1912 and 1913 by medical men practising in Harrogate, and by myself.

	1912	1913
Throat Swabs (Diphtheria) ...	27	462
Blood Serum (Enteric Fever)...	5	11
Sputum (Tuberculosis) ..	19	24
Milk (Tuberculosis) ...	9	8
Hairs (Ringworm)	69	67
Other	...	1
Total	129	573

Meteorology.

As in former years I give a table showing the principal meteorological features of the year, which has been prepared by the Borough Meteorologist, Mr. C. E. Rivers.

METEOROLOGICAL TABLE FOR 1913.

MONTH	RAINFALL				TEMPERATURE					Bright Sunshine (Campbell Stokes Recorder) Hours	DIRECTION OF WIND			
	Total inches	Greatest in 24 hours		Days in which 0·01 in. or more fell	Mean	Maximum		Minimum			S.W. Quadrant including W. days	S.E. Quadrant including S. Days	N.E. Quadrant including E. days	N.W. Quadrant including N. days
		Inches	Date			Degrees	Date	Degrees	Date					
January ...	4·51	1·37	11th	17	36·0	51·2	7th	12·8	14th	15·7	7	12	7	5
February...	0·99	0·43	7th	15	38·9	52·9	13th	24·2	23rd	44·2	10	5	8	5
March ...	3·49	0·40	29th	22	40·0	55·1	4th	22·7	18th	87·1	15	6	5	5
April ...	3·17	0·70	28th	18	44·1	62·2	23rd	28·1	13th	104·6	7	7	8	8
May	2·15	0·38	6th	13	50·5	74·0	30th	34·4	7th	140·0	11	6	7	7
June	1·40	0·27	17th	13	55·7	74·5	16th	40·8	12th	186·6	15	3	7	5
July	1·02	0·46	6th	11	56·0	72·0	29th	41·3	8th	105·2	8	...	11	12
August ...	1·10	0·24	22nd	9	57·3	79·3	30th	40·0	5th	144·1	10	2	9	10
September	1·27	0·28	17th	12	55·8	74·0	27th	37·2	15th	117·6	5	7	11	7
October ...	2·82	0·75	7th	19	49·3	60·0	17th	30·0	24th	67·2	9	8	10	4
November	2·50	0·57	15th	21	44·4	54·0	20th	30·0	6th	50·9	17	6	2	5
December	2·21	0·44	29th	14	38·3	54·0	8th	20·0	31st	35·2	18	3	...	10
Year	26·63	1·37	Jan. 11th	184	47·2	79·3	Aug. 30th	12·8	Jan. 14th	1098·6	132	65	85	83

C. E. RIVERS, A.M.I.C.E., F.R. Met. Soc., *Borough Meteorologist.*

Medical Inspection of School Children.

The Medical Officer of Health is also School Medical Officer. The medical inspection of school children has been carried out during the year upon the same lines as formerly, and the results obtained are described in a separate report which has been presented to your Education Committee.

Water Supply.

For the following description of the water supply I am indebted to Mr. West, Water Engineer.

"In 1846 an Act was obtained by a private Company to supply water to High and Low Harrogate and various districts surrounding same. This Company constructed the Ten Acre and Beaver Dyke reservoirs, and impounded certain springs into what is now termed the "tank spring." The water thus gathered was delivered to filtration works at Harlow Hill and Irongate Bridge. In addition to these supplies, water was gathered from Harlow Moor and a small reservoir built in Cold Bath Road. These latter are now discontinued.

"In 1897 the Harrogate Corporation obtained an Act to purchase the water undertaking, and in the same year powers were granted to construct Scargill Reservoir.

"The total capacity of the four reservoirs in Haverah Park is 370,000,000 gallons, whilst the watershed covers an area of 2,770 acres, consisting of what is known as "uplands," being largely moorland with extremely rough pasturage, and a small area of arable land. There are few farms on this watershed, the drainage of which receives particular attention so as to prevent any fear of contaminating the water used for supplying the town.

"In 1901 powers were obtained to construct the Roundhill reservoir, situate about twenty miles in a northerly direction from Harrogate. The capacity of this reservoir is about 525,000,000 gallons, and consists of a masonry dam thrown across the valley, with a total depth of water of 109 feet to the overflow weir. The gathering area consists almost wholly of moorlands, and with one exception nearly a total absence of peat deposit. When the water in this reservoir is brought into use it will be carried through three miles of tunnel and seventeen miles of aqueduct, delivering into the filtration works at Irongate Bridge or Harlow Hill as the case may be.

"The filtration works at Irongate Bridge and Harlow Hill consist of 11 sand-beds, having a total area of about 1½ acres, and 6 patent Candy oxidizing filters, having a working capacity of 30,000 gallons per hour. The water from the filtration works passes into 4 service reservoirs, having a capacity of 27,000,000 gallons—which are cleaned out annually—and thence direct to the consumer.

"There are about 38 miles of trunk mains, with 100 miles of service and subsidiary mains, which are washed out monthly.

"It is an uncommon occurrence to have a complaint of dirty water, samples of which are taken regularly nine times per annum and submitted for chemical and bacteriological examination; two of the analyst's reports are reproduced, and show that the quality of the water is beyond reproach. Several samples have been taken for the specific purpose of seeing if the water had plumbo-solvent properties, but the analyst has not discovered lead or other poisonous metals in the samples submitted to him. The permanent hardness of the water is about 3°, and taken altogether it is unquestionably an excellent water for drinking and domestic use.

"The Corporation is moving in the direction of substituting valve hydrants for those of the existing ball type, used for fire purposes, and which when carried out will be a distinct advantage, and prevent polluted matter reaching the filtered water.

"There are no storage cisterns, as the water supply is constant and taken direct from the town's mains.

"I imagine it would be difficult to find another town in England with a more abundant supply of high quality water at its command, and from which it will be seen that for years to come the inhabitants will have a never-failing supply of pure water.''

The following reports of analyses made by Mr. T. Fairley, of Leeds, show that the Corporation water supply maintains its high standard of purity.

No. 1.—Report on the analysis of a sample of water taken from Irongate Bridge clear water well (low level) on September 16th, 1913.

Source of sample :—Mainly Beaver Dyke ; part Tank Spring Carlesmoor, and Ten Acres.

The sample contains in grains per gallon :—

Chlorides equivalent to Common Salt ...	1·62
Nitrates and Nitrites	none
Calcium Magnesium Carbonates	1·68
Calcium Sulphates	3·85
Poisonous Metals	none
Free Ammonia	0·001
Albuminoid Ammonia	0·003
Proteid Ammonia	none
Oxygen absorbed to oxidise Organic Matter in four hours	0·060
Degrees of Hardness	3·3
Degrees of Hardness after boiling	3·0
Total Dissolved Solids	8·59
Volatile and Organic Matter...	1·44
Sediment	very minute

Microscopic Examination shows presence of a few Algae.

Colour of column two feet in depth = 1·1 units yellow + 0·3 blue.

Smell at 100° Fahrenheit ... ... earthy

Micro-organisms. 10 per cubic centimetre by plate culture ; the predominent form being Bacillus Fluorescens Liquefaciens, a non-pathogenic organism.

The chemical and bacteriological examinations show this to be a water of excellent quality for drinking and domestic purposes.

It shows much less colour than sample No. 133, received March 6th, 1913.

No. 2.—Report on the analysis of a sample of water taken from Harlow Hill clear water well (sand filter) on Sept. 16th, 1913.

Source of sample :—Scargill.

The sample contains in grains per gallon :—

Chlorides equivalent to Common Salt	1·62
Nitrates and Nitrites	none
Calcium Magnesium Carbonate	3·04
Calcium Sulphate	3·69
Poisonous Metals	none
Free Ammonia	0·001
Albuminoid Ammonia	0·003
Proteid Ammonia	none
Oxygen absorbed to oxidise Organic Matter in four hours	0·024
Degrees of Hardness	3·6
Degrees of Hardness after boiling	3·1
Total Dissolved Solids	8·71
Volatile and Organic Matter	0·36
Sediment	very minute
Microscopic Examination shows the presence of a few Algae.	
Colour of column two feet in depth = 0·8 units yellow + 0·2 blue.	
Smell at 100° Fahrenheit	faint earthy

Micro-organisms. 7 per cubic centimetre by plate culture ; the predominant form being Bacillus Fluorescens Liquefaciens, a non-pathogenic micro-organism.

The chemical and bacteriological examinations show this to be a water of excellent quality for drinking and domestic purposes. The total dissolved solids in this sample are rather more than in sample No. 135 received May 19th, 1913.

Private Water Supply.

All the houses in the Borough are supplied with water from the Corporation mains with the exception of one farm and some 14 dwelling-houses situated in an outlying area.

These houses are supplied by three wells, and the farm derives its water from a spring. Samples from the wells have been analysed during the year and all were found to be very pure water. The water from the spring supplying the farm was, however, found to be polluted. This farm is a considerable distance from the watermains, and the owner has had the spring thoroughly cleaned out and properly covered in. These measures appear to have been successful, as when analysed recently the water was found to be of " the very highest organic purity, very soft, and well suited for drinking and domestic purposes.

Sewerage and Sewage.

The sewerage of the Borough is entirely in the Department of the Borough Surveyor, and to him I am indebted for the following particulars :—

" Sewage is treated at two disposal works, one about two miles north of Harrogate, near Bachelor Gardens, and the other about five miles south of the town near Spofforth.

" At each of these works the sewage is delivered into open septic or sedimentation tanks. The effluent from these tanks is afterwards treated on intermittent percolating beds. It then passes over land, and is finally discharged into watercourses.

" The Inspectors of the West Riding Rivers Board inspect these works regularly, and appear to be satisfied with the purity of the effluent."

No complaints have been received during 1913 of any nuisance arising from either of these works.

Sewers.

During 1913 two short lengths of sewers have been relaid in Back St. George's Road and Back High Street Starbeck.

The sewers are ventilated by tall vertical shafts. Webbs Destructor Lamps are also in use. One or two lengths of sewer where there is very little fall are regularly flushed, either by a special cart or by automatic flushing chambers.

House Drainage.

The drains of all new houses are now laid upon concrete, and embedded for not less than half their diameter in cement concrete.

An inspection chamber, intercepting trap, and efficient means of ventilation are also provided.

Finally they are not passed by the Building Inspector until they have been proved to be smoke tight.

Pollution of Rivers and Streams.

This is under the control of the West Riding Rivers Board.

I am not aware that any of the streams in the district are polluted to any extent.

Excrement Disposal.

The disposal of excrement is almost entirely by water carriage. At the end of the year there were 12,426 water closets in the Borough.

In last year's report it was stated that there were 14,274 closets; this was a mistake, as owing to a clerical error the whole of the closets in the area supplied with water by the Corporation were included.

The number given above may be taken as being substantially correct.

There are still about 30 privies and 19 earth closets in use, nearly all in the outlying parts of the Borough. Several of these are only used occasionally; those in regular use are emptied weekly by the Corporation.

As occasion arises, they are abolished and replaced by water closets.

The number of waste water closets is also gradually diminishing. During the year 10 waste water closets were converted into sanitary flushing closets, leaving about 110 still in use.

There are also a few cesspools still in use. Some of these receive the drainage of outlying farms, and these are as a rule emptied by the farmers themselves.

Three or four receiving the drainage from houses which cannot be otherwise drained are emptied weekly by the Corporation.

Removal and Disposal of House Refuse.

House refuse is collected over the whole Borough by the Corporation who employ for this purpose a staff consisting of a Cleansing Inspector, one horsekeeper, and 24 men. 18 horses and waggons are engaged in this work, and the cost for the twelve months ended March 31st, 1913 was about £3,000.

The collection of refuse is made weekly, and during the Season the refuse from the hotels and larger boarding houses is removed more frequently; in some instances a daily collection is made.

Refuse from the Market and from fishmongers' shops is removed daily.

The whole of the refuse is disposed of by tipping on land. In my last report it was stated that this method of disposing of refuse was at its best unsatisfactory, and it was suggested that the advisability of providing a destructor plant should be seriously considered by the Council. I am glad to say that this suggestion has been adopted, and that a Committee of the Council has been appointed to fully consider this matter.

The number of ashpits in the Borough is steadily diminishing; at the end of 1913 there were about 170 ashpits in use as compared with 215 at the end of 1912.

The following table shows the number of ashpits abolished in recent years :—

1909	1910	1911	1912	1913
16	51	49	56	46

Factories and Workshops.

At the end of the year there were 201 workshops on the register.

These have been regularly inspected, and any defects found have in most cases been readily attended to.

A summary of the work is given in the following tables in the form required by the Home Office.

Annual Report of the Medical Officer of Health for the year 1913, for the Borough of Harrogate,

on the administration of the Factory and
Workshop Act, 1901, in connection with

FACTORIES, WORKSHOPS, WORKPLACES, AND HOMEWORK.

1.—INSPECTION OF FACTORIES, WORKSHOPS, AND WORKPLACES.

Including Inspections made by
Sanitary Inspectors or Inspectors of Nuisances.

PREMISES 1	Number of		
	Inspections 2	Written Notices 3	Prosecutions 4
Factories ... . (including Factory Laundries)	20	...	...
Workshops ... ... (including Workshop Laundries)	3210	1	...
Workplaces ... ... (other than Outworkers' premises included in Part 3 of this Report)	..	...	...
Total	3230	1	..

2.—DEFECTS FOUND IN FACTORIES, WORKSHOPS, AND WORKPLACES.

PARTICULARS 1	Number of Defects: Found 2	Number of Defects: Remedied 3	Number of Defects: Referred to H.M. Inspector 4	Number of Prosecutions 5
Nuisances under the Public Health Acts:—*				
Want of cleanliness	17	17	...	...
Want of ventilation	1	1	...	...
Overcrowding	1	1	...	...
Want of drainage of floors	...	...	...	...
Other nuisances	3	3	...	...
Sanitary accommodation: insufficient	...	...	...	...
Sanitary accommodation: unsuitable or defective	5	5	...	...
Sanitary accommodation: not separate for sexes ...	...	...	...	...
Offences under the Factory and Workshop Acts				
Illegal occupation of underground bakehouse (s. 101)	...	...	...	...
Breach of special sanitary requirements for bakehouses (ss. 97 to 100)	43	43	...	...
Other Offences ... ... (excluding offences relating to outwork which are included in Part 3 of this Report)	...	...	...	...
Total	70	70	..	...

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* Including those specified in sections 2, 3, 7, and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

3.—HOME WORK.

NATURE OF WORK *	OUTWORKERS' LISTS, SECTION 107									OUTWORK IN UNWHOLESOME PREMISES, SECTION 108			OUTWORK IN INFECTED PREMISES, SECTIONS 109, 110		
	Lists received from Employers							Prosecutions							
	Sending twice in the year			Sending once in the year											
		Outworkers †			Outworkers										
	Lists †	Contractors	Workmen	Lists	Contractors	Workmen	Notices served on Occupiers as to keeping or sending lists	Failing to keep or permit inspection of lists	Failing to send lists	Instances	Notices serviced	Prosecutions	Instances	Orders made (S. 110)	Prosections (S. 109, 110)
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Wearing Apparel—Making, etc. ...	4		5	2		2									
Tents	2		2												
No Outworkers' Lists received for any of the other trades enumerated in the Home Office Table															
Total	6		7	2		2									

* If an occupier gives out work of more than one of the classes specified in column 1, and subdivides his list in such a way as to show the number of workers in each class of work, the list should be included among those in column 2 (or 5 as the case may be) against the principal class *only*, but the outworkers should be assigned in columns 3 and 4 (or 6 and 7) into their respective classes. A footnote should be added to show that this has been done.

† The figures required in columns 2, 3, and 4 are the *total* number of the lists received from those employers who comply strictly with the statutory duty of sending *two* lists each year, and of the entries of names of outworkers in those lists. The entries in column 2 must necessarily be *even* numbers, as there will be two lists for each employer—in some previous returns odd numbers have been inserted. The figures in columns 3 and 4 will usually be (approximately) double of the number of individual outworkers whose names are given, since in the February and August lists of the same employer the same outworker's name will often be repeated.

4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year		Number
1		2
Important classes of workshops, such as workshop bakehouses, may be enumerated here	Bakehouses	50
	Milliners and Dressmakers ...	56
	Tailors and Bootmakers ...	40
	Miscellaneous	55
Total number of Workshops on Register		201

5.—OTHER MATTERS.

Class		Number
1		2
Matters notified to H.M. Inspector of Factories :—		
Failure to affix Abstract of the Factory and Workshop Acts (s. 133, 1901)		...
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Acts (s. 5, 1901)	Notified by H.M. Inspector	1
	Reports (of action taken) sent to H.M. Inspector	1
Underground Bakehouses (s. 101) :—		
Certificates granted during the year		...
In use at the end of the year		11

25th May, 1913.

(Signature) JAMES MAIR, *Medical Officer of Health.*

NOTE.—The Factory and Workshop Act, 1901 (S. 132), requires the Medical Officer of Health in his Annual Report to the District Council to report specifically on the administration of that Act in workshops and workplaces, and to send a copy of his Annual Report, or so much of it as deals with this subject, to the Secretary of State (Home Office). If the Annual Report is presented otherwise than in print, it is unnecessary tc include in the copy sent to the Home Office the portions which do not relate to factories, workshops, workplaces, or homework. The duties of Local Authorities and the Medical Officer of Health under the Act of 1901 are detailed in the Home Office Memorandum of March, 1912.

One reference was received from H.M. Inspector of Factories.

This related to a gas stove not provided with a hood or flue to carry away fumes.

The defect was remedied, and the action taken reported to the Inspector.

Housing.

The chief Sanitary Inspector is the officer appointed to act as Inspector under the Housing and Town Planning Act.

During the year a house-to-house inspection has been made of 91 houses situated mainly in the Central and East Wards.

The results of this inspection are summarised in the following table which has been drawn up in accordance with the instructions contained in the Housing (Inspection of District) Regulations, 1910.

Number of houses inspected	91
,, not in all respects reasonably fit for habitation	79
,, unfit for habitation	7
,, represented as unfit for habitation ..	4
,, of Closing Orders made	4
,, of houses remedied after Closing ...	4
,, ,, ,, without Closing	58
,, ,, voluntarily closed ...	1
,, where works are in progress ...	19

It will be observed that in four houses nothing had been done at the end of the year. Three of these have since been voluntarily closed—two permanently—by the owner, and the owner of the remaining house has promised to cease using it for human habitation so soon as his tenant secures another house.

The nature of the defects found is shown in the following table.

Houses with general dilapidations	68
,, in which dampness was found ...	19
,, with insufficient light or ventilation	82
,, ,, insanitary sinks	11
,, ,, untrapped sink pipes	8
,, ,, defective drainage	37
,, ,, insufficient food stores ...	57
,, ,, defective waste water closets...	10
,, ,, insanitary ashpits	14
,, ,, unpaved yards	25

No case of overcrowding was discovered during the house-to-house inspection. A few cases were, however, discovered during the course of other inspections. These have all been remedied.

Empty Houses.

At the end of April, 1914, there were 174 houses of a rental of £20 or less empty in the Borough ; 110 of these were houses of a rental of about £16 or less. The majority of these empty houses are situated in the Starbeck and Bilton Wards and are comparatively new houses.

An inspection has been made of the greater number, and with few exceptions all were found to be reasonably fit for human habitation.

There does not appear to be at present, therefore, any scarcity of working-class dwellings.

New Houses.

The Borough Surveyor informs me that 54 new houses have been erected during the year, as compared with 71 in 1912, and 74 in 1911. 24 of these houses are of a rental value of about £16 and may therefore be classed as working men's dwellings,

The following table shows the number of new houses erected in each Ward.

Central	East	West	Bilton	Sarbeck
4	19	4	17	10

Supervision of new buildings is maintained, and no dwelling-house is allowed to be occupied until a certificate has been given by the Surveyor.

Paving of Yards.

The paving of yards is enforced by Section 32 of the Harrogate Corporation Act, 1901, which enacts that if the yard in connection with any dwelling house erected before the passing of the Act is not so formed, asphalted, or paved, as to allow the surface water to be carried off to the drains, the Corporation may require the owner to form and pave such yard for at least two hundred square feet immediately adjoining such house.

The following table shows the number of yards which have been paved in recent years in accordance with the provisions of this Section.

1908	1909	1910	1911	1912	1913
23	204	59	63	60	128

Common Lodging Houses.

There are no registered common lodging houses in the Borough.

Slaughter Houses.

There are four slaughter houses in the Borough.

Two are situated at a distance from dwelling houses; the other two are close to houses in the midst of fairly thickly populated areas. They are, however, well managed, and no complaint of nuisance arising from them has been made.

Considerable improvements have been effected at two of the slaughter houses during the year. The inside walls of both have been coated with impervious material, and the yard in front of one has been concreted and drained. As a result of these improvements the whole of the slaughter houses are now in a fairly satisfactory structural condition.

During the year 212 visits have been paid to the slaughter houses and they have always been found in a satisfactory condition.

Inspection of Meat.

Last year was the first year in which it was possible to make any attempt at the systematic inspection of the food supply, and during the present year (1913) much more attention has been given to this work as is shown by the results.

During the year the Inspector responsible for this work paid 212 visits to slaughter houses. In addition to these he made 597 visits to shops and other premises where food is manufactured or sold.

The following table shows the quantity of unsound food destroyed during the year:—

Nature of Food	Tons	Cwts.	Qrs.	Lbs.
Beef	1	...	3	16
Mutton ..	...	...	3	11
Pork	...	12	1	12
Veal	...	...	1	9
Offal	...	...	5	23
Total ...	1	15	3	15

The total quantity of meat destroyed in 1912 was 234½lbs.

Two carcases of beef weighing 84 quarters, and five carcases of pork weighing 33 quarters were condemned for tuberculosis.

The whole of the meat destroyed was found in one or other of the slaughter houses, and in only one instance was it necessary to seize the meat and have it formally condemned by a magistrate. Seizure was necessary in this case not because there was any objection to surrender, but because there was a dispute between two butchers as to who owned the meat, and neither would sign a surrender certificate.

I have to acknowledge gladly the co-operation of the butchers slaughtering in Harrogate in assisting us to maintain a sound meat supply.

As a rule, if they suspect any meat to be unsound it is kept in the slaughterhouse until it can be inspected, and if the Inspector is of opinion that it is unfit for food it is at once surrendered.

There are, however, a certain number of butchers who apparently resent the inspection to which meat slaughtered in Harrogate is subjected. At any rate since the systematic inspection of meat was begun some ten or twelve butchers who formerly slaughtered in Harrogate have ceased doing so and now slaughter in other districts.

Special attention is paid to the shops of these butchers who do not slaughter in the Borough, but as I have explained in former reports meat can only be adequately inspected in the slaughter houses ; when it has been dressed and cut up for sale it is difficult and sometimes impossible to detect disease.

Milk Supply, Cowsheds.

The names of 18 cowkeepers were on the register at the end of the year.

The cowsheds have been regularly inspected during the year ; 79 visits were paid by the Sanitary Inspectors, and they were also visited regularly by the Medical Officer of Health and Veterinary Inspector.

There has been a considerable improvement in the cleanliness of premises and cattle, but the majority of the cowkeepers require constant supervision to keep them up to the mark in this respect.

Veterinary Inspection of Milk Cows.

This has been carried out as in the two former years by Mr. Ellison, M.R.C.V.S. Each cowshed in the Borough is visited by him three times a year, and every milk cow examined with a view to the discovery of any cow suffering from tuberculous disease of the udder. Eight cows were found to be suffering from mastitis (inflamation of the udder), and as there was a possibility that this might be tuberculous, samples of milk were taken from each of these cows and submitted to bacteriological examination. In no case, however, was the tubercle bacillus found to be present. Five other samples of milk produced outside the Borough were similarly examined during the year and also with negative results.

It is satisfactory that Mr. Ellison is able to report that the cows generally are of a better class now than when his inspection began.

During the year notice was received from the County Council that one cow (not in milk) had been notified under the provisions of the Tuberculosis Order of the Board of Agriculture as suffering from tuberculosis with emaciation. This animal was removed to a knackers and slaughtered.

Purveyors of Milk.

At the end of the year the register contained the names of 113 purveyors of milk including 76 whose premises are situated outside the Borough. The premises of 37 purveyors in the Borough have been regularly visited by the Inspectors; 414 visits having been made during the year.

The cleanliness of the premises and vessels has been generally found to be satisfactory, and when any faults were found they were as a rule at once remedied.

Bakehouses.

There are 50 bakehouses in the Borough, of which 11 are underground. One underground bakehouse ceased to be used during the year and its certificate has been cancelled.

361 visits have been made during the year, and defects were found on 43 occasions. These defects have all been remedied.

Food and Drugs Acts.

During the year 104 samples of foods, etc., have been purchased and submitted to Mr. Richardson, the County Analyst, for analysis.

Of these samples 91 were taken formally and 13 were informal samples.

In six instances the sample was found to be adulterated, and in addition two samples of milk were found by the Analyst to show a "slight deficiency in fat" and one to show "a slight deficiency in solids not fat," but as the deficiency in these three samples was very small they were classified by the Analyst as genuine.

The following table shows the number and nature of the samples taken.

TABLE A.

NATURE OF SAMPLE	TOTAL, FORMAL		TOTAL, INFORMAL	
	Number	Number adulterated	Number	Number adulterated
New Milk	77	3	...	...
Butter	5	...	2	...
Lard	2	...	...	...
Ground Ginger	1	...	1	...
Camphorated Oil	1	...	1	...
Cream	1	1	1	1
Jam	...	...	1	...
Sausage	...	...	1	...
Margarine	...	...	1	...
Tinned Foods	1	...	1	...
Potted Meat	...	...	1	1
Arrowroot	1	...	...	...
Cream of Tartar	1	...	...	...
Paregoric	...	...	1	...
Coffee	...	...	1	...
Beer	...	...	1	...
Compound Liquorice Powder	1	...	...	...
Total	91	4	13	2

The percentage of adulteration in the formal samples was 4·4, and in the informal samples, 15·4.

Of the formal samples 4·4 per cent. were found to be adulterated and of the informal 15·4 per cent.

Details of the adulterated samples and of the action taken in each case are given in the next table.

TABLE B.—ADULTERATED SAMPLES.

Number of Sample	Nature of Sample	Analyst's Report	Action taken
19	Cream	Contains 0·177 per cent. of boric acid	Informal sample not labelled. Vendor warned by Town Clerk.
39	Cream	Contains 0·277 per cent. of boric acid	Sample was not labelled. Vendor warned by Town Clerk.
40	New Milk	Solids, not fat, 8·42 ... This sample shows a deficiency in solids not fat, but this is so small and the fat so high that I am classifying it as genuine.	
44	PottedMeat	Contains 0·233 per cent. equal to 17·31 grains per lb. of boric acid ...	Informal sample. Warned by Town Clerk.
52	New Milk	Contains 94 per cent. of the minimum proportion of fat	Vendor warned by Town Clerk.
64	New Milk	Contains 2·98 per cent. of fat. Shows a slight deficiency in fat, but this is so small and the solids not fat so high that I am classifying this sample as genuine	
65	New Milk	Contains 2·95 per cent. of fat. Shows a slight deficiency in fat, but the solids not fat are high, so I am classifying the sample as genuine	
67	New Milk	Contains 56 per cent. of the minimum proportion of fat	Summons issued. Withdrawn on payment of costs, £1.
68	New Milk	Contains 90 per cent. of the minimum proportion of fat	Vendor prosecuted. Fine £1 10s. and costs £2 14s. 6d.

It is satisfactory to be able to report that there has been a considerable diminution in the proportion of adulterated samples as compared with the previous year. Last year 10·5 per cent. of all samples taken were found to be adulterated; this year the proportion has fallen to 5·8, not much more than half.

The proportion of adulterated and doubtful milk samples is also considerably lower than in 1912; 7·8 per cent. as compared with 15 per cent.

The next table, prepared from the Analyst's Reports, shows the average composition of the genuine samples of milk analysed during the year.

Year	Number of Samples	Average Percentage of Fat	Average Percentage of Non-Fatty Solids
1912	62	3·78	9·09
1913	71	3·78	9·06

The standard of the Board of Agriculture is:—fat, 3 per cent.; and non fatty solids 8·5 per cent; and it will be noticed that the average composition of the genuine samples is well above this standard.

PRESERVATIVES IN FOOD.

The only preservative found in food was boric acid, which was present in one sample of potted meat and two samples of cream.

All samples of milk are examined by the Analyst for the presence of preservatives but in none was any found.

Offensive Trades.

There are two offensive trades—one tripe-boiling and one gut-scraping business—in the Borough. The premises have been frequently inspected during the year and have always been found in a satisfactory condition.

Legal Proceedings.

The legal proceedings taken under the Food and Drugs Acts have already been referred to. No other proceedings were taken during the year.

Drain Testing.

There is a system in vogue in Harrogate whereby the owner or occupier of any house is entitled to have the drains tested by the Corporation free of cost not more often than once in twelve months upon making application therefor.

In 1913 the drainage systems of 85 houses were so tested, and in addition the drains of 137 houses were examined on account of infectious disease, complaint of nuisances, or for some other reason, making a total of 222 drainage systems examined during the year.

Of these, 190 were found to be more or less defective; in many instances the defect found was slight, frequently not more than a slight escape of smoke at a gulley; but in 76 cases it was found necessary to redrain the houses.

In all cases the defects had been repaired or the work was in progress at the end of the year.

Reconstruction of Drains.

The next table gives a list of 152 houses (including 76 mentioned above) in which the drainage was entirely reconstructed. In all cases this was done under the supervision of the department.

Albert Terrace, Starbeck, 2.
Beech Street, 7, 9.
Bilton Bar, 2, 3.
Beechwood Crescent, 10.
Belmont Road, 25, 27, 29, 31.
Belmont Avenue, 14, 16, 20, 22, 24, 26, 28, 30.
Beech Grove, 15.
Belford Square, 10, 12, 14.
Cold Bath Road, 45, 47, 133, 135.
Cheltenham Road, 6.
Crescent Road, 2, 4, 6.

Crown Place, 3, 5.
Coppice Farm and Cottage.
Dragon Avenue, 15.
Denmark Street, 57, 59.
Denmark Terrace, 2, 4.
East Park Road, 4.
East Parade, 7, 9, 11, 13, 97.
Eton Terrace, 2.
Elmwood Street, 4, 6. 8, 10, 12, 14, 16, 18, 20, 22, 24.
Franklin Road, 25.
Grove Road, 31, 33, 35, 37.
Harlow Moor Drive, "Brantwood."
High Street, Starbeck, 37, 53, 55.
James Street, 39.
King's Road, 130, 132.
Mount Street, Oatlands, 6, 8. 12.
North Park Road, 23.
Park Row, New Park. 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34. 36, 38.
Robert Street, 10.
Regent Parade, 12, 13, 21, 23.
Regent Place, Starbeck, 12, 16.
Roker Road, 1, 2, 3, 4, 5, 6, 7, 9, 11, 12.
St. Mary's Walk, 25.
Skipton Road, 52, 53, 54, 55, 57, 59, 61, 63.
Station Parade, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49.
Strawberry Dale Avenue, Drill Hall and Cottage.
South Ville Terrace, New Park, 14, 16, 18, 20, 22, 24.
Tower Street, 33, 35, 39, 41, 43, 45, 47, 49, 51, 53, 55, 58.
The Crescent, New Park, 5, 9.
Valley Drive, 57.
West Cliff Terrace, 13, 15, 32, 34.
Westmoreland Street, 12, 14.
West End Avenue, 64.

Summary of Routine Work carried out by the Sanitary Inspectors.

The following table, which has been prepared by the Chief Sanitary Inspector, shows so far as it is possible to do so in tabular form the routine work carried out during the year.

Informal notices served	484
Statutory notices served	181
Notices complied with	507
Total number of visits and inspections	8,957
Total number of nuisances reported by Inspectors ...	1,710
Total number of nuisances reported by residents ...	221
Total number of nuisances abated	2,630
Inspection of houses after complaints of nuisances ...	199
Drains tested and opened out for examination ...	223
Drains tested and found defective	191
Animals kept so as to be a nuisance	7
Additional water closets provided	8
Ceilings underdrawn	6
Basements subsoiled, drained on to gullies	2
Bedrooms ventilated by fixing windows or air grates	90
Blocked drains opened out, cleansed, and put into proper working order	23
Defective house drains repaired	238
Defective spouting of eaves of buildings repaired ..	66
Defective closet cisterns repaired or renewed ...	33
Defective water closet basins renewed	7
Defective roofs repaired	21
Defective plastering	71
Defective stairs repaired	6
Defective soil pipes or vent shafts repaired	19
Defective kitchen and scullery floors repaired ...	147
Defective bedroom floors repaired	15
Defective or dangerous chimneys	3
Defective handrails repaired	3
Defective doors repaired	6

Dangerous ceilings made safe	1
Dampness dealt with	19
Dilapidated dust bins replaced with new ones ...	262
Dilapidated outbuildings repaired or taken down ...	11
Dilapidated water closets repaired or reconstructed	55
Dirty houses cleaned out and purified	8
Dirty or defective closets repaired, cleansed, or limewashed out	31
Drainage or sanitary arrangements of houses dealt with	342
Drainage systems ventilated	107
Drains through houses taken up, and cast iron pipes substituted	3
House drains disconnected from sewer	69
Hotel urinals dirty or without water	4
Insanitary ashpits removed and dust bins substituted	46
Insanitary sinks removed	26
Insanitary privies converted into water closets ...	1
Inspection chambers built on house drains	78
Manure bins provided	3
Offensive accumulations removed	17
Fowls kept so as to be a nuisance	5
Pedestal closets fixed in place of boxed-in ones ...	27
Rainwater pipes disconnected and made to discharge over gullies	48
Rainwater pipes repaired	14
Soil pipes ventilated with 4in. shafts	20
Sink pipes disconnected from drain	5
Sink pipes trapped	27
Sanitary sinks provided	9
Ventilated food stores provided	57
Workshops provided with sanitary conveniences ...	1
Windows repaired and made to open	289
External house walls repaired	83
Waste pipes from sink, bath, or lavatory basins repaired	23

Yards paved whole surface	128
Yard paving repaired	39
Drains through houses taken up	10
Under floors ventilated	18
Water supply of houses dealt with	13
Using a cellar dwelling contrary to Public Health Act	1
Manure pits covered over	5
Miscellaneous	5
Dirty yards cleaned up	5
Dangerous fire-places made safe or new ones provided	2
Waste water-closets converted into ordinary ones ...	10

TABLE I.

Vital Statistics of Whole District during 1913 and Previous Years.

Year	Population estimated to middle of each year	Births			Total Deaths Registered in the District		Transferable Deaths ‡		Nett Deaths belonging to the District			
		Un-corrected Number	Nett		Number *	Rate	of Non-residents registered in the District †	of Residents not registered in the District †	Under 1 year of age		At all ages	
			Number †	Rate					Number *	Rate per 1,000 Nett Births	Number *	Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1908	32,000	555		17·3	397	12·4	47	8	63	113·0	358	11·2
1909	33,000	640		19·4	411	12·4	63	10	55	86·0	358	10·8
1910	33,500	620		18·8	378	11·3	16	20	57	90·6	382	11·4
1911	33,840	595	606	17·9	425	12·6	58	30	61	100·7	397	11·7
1912	34,400	489	500	14·5	353	10·3	60	27	32	64·0	320	9·3
1913	34,960	575	582	16·3	452	12·7	65	36	45	77·3	423	11·9

Notes.—This Table is arranged to show the gross births and deaths in the district, and the births and deaths properly belonging to it with the corresponding rates. For years before 1911 some of the corrected rates probably will not be available. The rates should be calculated per 1000 of the estimated gross population. In a district in which large Public Institutions for the sick and infirm seriously affect the statistics, the rates in Columns 5 and 13 may be calculated on a nett population, obtained by deducting from the estimated gross population the average number of inmates not belonging to the district in such institutions.

*In Column 6 are to be included the whole of the deaths registered during the year as having actually occurred within the district.

For continuation of Notes see page 80.

NOTES TO TABLE 1 (continued).

In Column 12 is to be entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column 9. Deaths in Column 10 are to be similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

†The Medical Officer of Health will be able from the returns made to him by the local Registrar of Deaths, as well as from the quarterly lists furnished by the Registrar-General to fill in Column 8 in accordance with the rule in the next paragraph below. The Registrar-General, either directly or through the County Medical Officer of Health, will supply the Medical Officer of Health with the particulars of deaths to be entered in Column 9; and all such deaths must be included in this Column, unless an error is detected, and its correction has been accepted by the Registrar-General. For Column 4 the Registrar-General will furnish to the Medical Officer of Health a Statement of the number of births needing to be added to or subtracted from the total supplied by the local Registrar.

‡"Transferable Deaths" are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided. The deaths of persons without fixed or usual residence, *e.g.*, casuals, must not be included in Columns 8 or 9, except in certain instances under 3 (*b*) below. The Medical Officer of Health will state in Column 8 the number of transferable deaths of "non-residents" which are to be deducted, and will state in Column 9 the number of deaths of "residents" registered outside the district which are to be added in calculating the nett death-rate of his district.

The following special cases arise as to Transferable Deaths:—

(1) Persons dying in institutions for the sick and infirm, such as hospitals, lunatic asylums, workhouses, and nursing homes (but not almshouses) must be regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission, the death is not transferable. If the patient has been directly transferred from one such Institution to another, the death is transferable to the district of residence at the time of admission to the first Institution.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement should be referred to the district of fixed or usual residence of the parent.

(3) Deaths from Violence are to be referred (*a*) to the district of residence, under the general rule; (*b*) if this district is unknown, or the diseased had no fixed abode, to the district where the accident occurred, if known; (*c*) failing this, to the district where death occurred, if known; and (*d*) failing this, to the district where the body was found.

Area of district in acres (land and inland water), 3,276. Total population at all ages, 33,706; Number of inhabited houses, 7,409; Average number of persons per house, 4·6; at Census, 1911 (cf. Census, Vol. V.)

TABLE II.

CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR, 1913.

Notifiable Disease	Number of cases notified								Total cases notified in each locality					Total cases removed to hospital
	At all Ages	At Ages—Years												
		Under 1	1 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 and upwards	Central	East	West	Bilton	Starbeck	
Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera, Plague ...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membraneous Croup)	55	...	9	35	9	2	...	...	2	20	12	3	18	41
Erysipelas	9	...	...	...	...	4	3	2	1	3	1	3	1	..
Scarlet Fever	58	...	5	34	10	8	1	...	7	15	11	12	13	46
Typhus Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever	5	..	...	2	...	2	1	...	2	...	1	1	1	2
Relapsing Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro-spinal Meningitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Poliomyelitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis	52	...	...	16	4	27	4	1	7	22	2	13	8	...
Other forms of Tuberculosis	41	...	2	22	7	9	1	...	15	12	2	6	6	...
Totals	220	...	16	109	30	52	10	3	34	72	29	38	47	89

Harrogate and Knaresborough Joint Isolation Hospital, Thistle Hill, Knaresborough.
Harrogate and Knaresborough Joint Small Pox Hospital.

TABLE III.

CAUSES OF, AND AGES AT DEATH

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of Residents, whether occurring with or without the District (*a*)			
	All Ages	Under 1	1 and under 2	2 and under 5
1	2	3	4	5
All causes { Certified (*c*)	423	45	5	7
All causes { Uncertified	...	...	...	...
Enteric Fever	1	...	...	...
Small-pox	...	...	...	...
Measles	...	...	...	...
Scarlet Fever	...	...	...	...
Whooping Cough	...	...	...	...
Diphtheria and Croup	2	...	...	1
Influenza...	9	...	...	...
Erysipelas	...	...	...	..
Phthisis (Pulmonary Tuberculosis) ...	19	1	...	...
Tuberculous Meningitis	3	...	1	2
Other Tuberculous Diseases	1	...	...	...
Cancer, Malignant Disease	40	...	...	...
Rheumatic Fever	1	...	...	...
Meningitis (see note *d*)	...	...	...	...
Organic Heart Disease	52	...	...	...
Bronchitis	25	1	..	...
Pneumonia (all forms)	30	4	1	2
Other diseases of Respiratory Organs ...	12	1	...	...
Diarrhœa and Enteritis (see note *e*) ...	9	6	1	1
Appendicitis and Typhlitis	3	...	...	1
Cirrhosis of Liver	7	...	...	...
Alcoholism	. .	...	...	...
Nephritis and Bright's Disease	17	...	...	...
Puerperal Fever	...	...	...	...
Other accidents and diseases of Pregnancy and Parturition	3	...	...	...
Congenital Debility and Malformation, including Premature Birth	17	17	...	...
Violent Deaths, excluding Suicide	8	...	1	...
Suicide	4	...	...	...
Other Defined Diseases	156	15	1	...
Diseases ill-defined or unknown	4	...	...	...
Totals...	423	45	5	7
SUB-ENTRIES included in above figures { Cerebro-spinal Meningitis	...	...	...	...
Poliomyelitis	...	...	...	...
Pneumonia (other than Broncho-pneumonia)...	23	1	...	1

See Notes,

DURING THE YEAR 1913.

Nett Deaths at the subjoined ages of Residents whether occurring within or without the District (*a*)					Total Deaths whether of Residents or Non-residents in Institutions in the District (*b*)
5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	
6	7	8	9	10	11
11	11	56	104	184	58
…	…	…	…	…	…
…	…	…	1	…	…
…	…	…	…	…	…
…	…	…	…	…	…
…	…	…	…	…	…
…	…	…	…	…	…
1	…	…	…	…	…
…	…	1	2	6	1
…	…	…	…	…	…
2	1	9	6	…	…
…	…	…	…	…	1
…	…	…	1	…	1
1	…	3	16	20	8
1	…	…	…	…	…
…	…	…	…	…	…
…	…	9	16	27	1
…	…	1	3	20	…
1	1	6	7	8	2
…	…	…	5	6	2
…	…	…	…	1	…
…	1	..	…	1	4
…	…	2	4	1	…
…	..	…	…	…	…
…	…	1	9	7	…
…	…	…	…	…	…
…	…	3	…	…	…
…	..	…	…	…	1
…	…	4	3	…	3
…	…	2	1	1	…
5	8	12	30	85	34
…	…	3	…	1	…
11	11	56	104	184	58
…	…	…	…	…	…
…	…	…	…	…	…
					…
1	1	6	6	7	…

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TABLE IV.

INFANT MORTALITY DURING THE YEAR 1913.

Nett Deaths from stated causes at various Ages under 1 Year of Age.

Causes of Death	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	4 wks. and under 3 mnths	3 and under 6 months	6 and under 9 months	9 and under 12 months	Total Deaths under 1 yr.
All causes { Certified	14	1	2	3	20	8	7	3	7	45
All causes { Uncertified	...	...	...	...	...	...	...	...	...	...
Small-pox	.	...	...	...	...	...	...	...	...	...
Chicken-pox	.	...	...	..	..	...	...	...	..	...
Measles	.	...	...	...	...	...	...	...	...	...
Scarlet Fever	...	..	...	...	...	...	...	.	...	...
Whooping-cough			...	...	...	...	...	.		...
Diphtheria and Croup		...	.	..	...	.	...	...	...	...
Erysipelas...	.	...	..		...	...	...	...	...	...
Tuberculosis Meningitis	...	..	...	...	...	.	...	...	...	...
Abdominal Tuberculosis (*b*)	...	...	...	..	...	...	...	...	...	...
Other Tuberculous Diseases	...	..	..	...	...	...	..	1	...	1
Meningitis (*not Tuberculous*)	...	...	...		...	...	.	...	...	...
Convulsions	1	1	.	...	2	2	2	1	2	9
Laryngitis	...	...	.	...	...	...		...	...	...
Bronchitis	...	...	.	1	1	...	.	...	...	1
Pneumonia (all forms) .:.	.	...	..	...	..	...	2	...	2	4
Diarrhœa	..	...	...	1	1	...	1	.	1	3
Enteritis	...	...	..	1	1	1	...	1		3
Gastritis	.	...	...	..	...	...	...	...	...	...
Syphilis	1	.	..	...	1	..	...	...	.	1
Rickets	...	...	..	...	...	...	2	.	...	2
Suffocation, overlying	...	...	...	...	...	...	...	...	...	...
Injury at birth	2	...	..	...	2	...	...	...	...	2
Atelectasis	1	...	...	..	1	...	...	...	..	1
Congenital Malformations (*c*) ...	..	...		...	...	1	...	...	1	2
Premature Birth	8	..	2	...	10	...	..	.	...	10
Atrophy, Debility, and Marasmus ...	1	...	...	. .	1	3	...	...	1	5
Other Causes	...	...	...	...	...	1	..	...	..	1
Totals	14	1	2	3	20	8	7	3	7	45

See Notes page 86

Nett Births in the Year.		Nett Deaths in the Year.	
Legitimate	535	Legitimate Infants ...	36
Illegitimate	47	Illegitimate Infants ...	9

NOTES TO TABLE III.

The classification and numbering of causes of death are those of the "Short List" on page XXV. of the Manual of the International List of Causes of Death, which should be consulted and followed in all cases of doubt.

Copies of this Manual were distributed to Medical Officers of Health in 1912 by the Registrar-General, and may be purchased either directly or through any bookseller from Wyman & Sons Fetter Lane, E.C., price 1/-.

(*a*) All "Transferable Deaths" of residents, *i.e.*, of persons resident in the district who have died outside it, are to be *included* with the other deaths in columns 2-10. Transferable deaths of non-residents, *i.e.*, of persons resident elsewhere in England and Wales who have died in the district, are in like manner to be *excluded* from these columns. For the precise meaning of the term "transferable deaths" *see* footnote to Table I.

The total deaths in column 2 of Table III. should equal the figures for the year in column 12 of Table I.

(*b*) All deaths occurring in institutions for the sick and infirm situated within the district, whether of residents or of non-residents, are to be entered in the last column of Table III.

(*c*) All deaths certified by registered Medical Practitioners and all Inquest cases are to be classed as "Certified;" all other deaths are to be regarded as "Uncertified."

(*d*) Exclusive of "Tuberculous Meningitis" (10), but inclusive of Cerebro-Spinal Meningitis.

(*e*) Title 19 should be used for deaths from Diarrhœa and Enteritis at all ages. (In the "Short List" deaths from Diarrhœa and Enteritis under 2 years are included under Title 19; those at 2 years and over being placed unde Title 28.)

NOTES TO TABLE IV.

(*a*) The total in the last column of Table IV. should equal the total in column 10 of Table I., and in column 3 of Table III.

(*b*) Under Abdominal Tuberculosis are to be included deaths from Tuberculous Peritonitis and Enteritis and from Tabes Mesenterica.

(*c*) The total deaths from Congenital Malformations, Premature Birth, Atrophy, Debility, and Marasmus, should equal the total in Table III. under the heading Congenital Debility, and Malformation including Premature Birth.

Want of Breast Milk should be included under Atrophy and Debility.

(*d*) For references to the meaning of any other headings, *see* notes attached to Table III.

In recording the facts under the various headings of Tables I., II., III., and IV., attention has been given to the notes on the Tables.

JAMES MAIR,
Medical Officer of Health.

May, 1914.

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